LEED 2009 for New Construction and Major Renovation

Project Checklist

Project Name

Date

Sustainable Sites — Possible Points: 26

Y	N	?			
Y			Prereq 1	Construction Activity Pollution Prevention	
			Credit 1	Site Selection	1
			Credit 2	Development Density and Community Connectivity	5
			Credit 3	Brownfield Redevelopment	1
			Credit 4.1	Alternative Transportation—Public Transportation Access	6
			Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
			Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
			Credit 4.4	Alternative Transportation—Parking Capacity	2
			Credit 5.1	Site Development—Protect or Restore Habitat	1
			Credit 5.2	Site Development—Maximize Open Space	1
			Credit 6.1	Stormwater Design—Quantity Control	1
			Credit 6.2	Stormwater Design—Quality Control	1
			Credit 7.1	Heat Island Effect—Non-roof	1
			Credit 7.2	Heat Island Effect—Roof	1
			Credit 8	Light Pollution Reduction	1

Water Efficiency — Possible Points: 10

Y			Prereq 1	Water Use Reduction—20% Reduction	
			Credit 1	Water Efficient Landscaping	2 to 4
			Credit 2	Innovative Wastewater Technologies	2
			Credit 3	Water Use Reduction	2 to 4

Energy and Atmosphere — Possible Points: 35

Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
			Credit 1	Optimize Energy Performance	1 to 19
			Credit 2	On-Site Renewable Energy	1 to 7
			Credit 3	Enhanced Commissioning	2
			Credit 4	Enhanced Refrigerant Management	2
			Credit 5	Measurement and Verification	3
			Credit 6	Green Power	2

Materials and Resources — Possible Points: 14

Y			Prereq 1	Storage and Collection of Recyclables	
			Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
			Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
			Credit 2	Construction Waste Management	1 to 2
			Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	N	?			
			Credit 4	Recycled Content	1 to 2
			Credit 5	Regional Materials	1 to 2
			Credit 6	Rapidly Renewable Materials	1
			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
			Credit 1	Outdoor Air Delivery Monitoring	1
			Credit 2	Increased Ventilation	1
			Credit 3.1	Construction IAQ Management Plan—During Construction	1
			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
			Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
			Credit 5	Indoor Chemical and Pollutant Source Control	1
			Credit 6.1	Controllability of Systems—Lighting	1
			Credit 6.2	Controllability of Systems—Thermal Comfort	1
			Credit 7.1	Thermal Comfort—Design	1
			Credit 7.2	Thermal Comfort—Verification	1
			Credit 8.1	Daylight and Views—Daylight	1
			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

			Credit 1.1	Innovation in Design: Specific Title	1
			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

			Credit 1.1	Regional Priority: Specific Credit	1
			Credit 1.2	Regional Priority: Specific Credit	1
			Credit 1.3	Regional Priority: Specific Credit	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

Appendix B

Emissions Inventory

Appendix B: Emissions Inventory

B.1 INTRODUCTION

This Appendix includes summer average emissions inventories for the San Joaquin Valley Air Basin for the years 2002, 2008, 2011, and 2012, which are the milestone years for serious areas. The baseyear (the year from which the inventory is projected forward and backward) for these inventories is 2002. The year 2005 has been included for control measure development. The years 2014, 2017, 2018, 2020, and 2023 are milestone or modeling years for classifications higher than serious. Table B-3 contains NOx, and Table B-4 contains VOC. This Appendix concludes with an overview of emissions inventory calculations and revisions. These summer average (May-October) inventories reflect emissions during the ozone season. Results from EMFAC 2007 have been incorporated into the mobile source portion of the inventories.

The official ARB inventories shown in Tables B-3 and B-4 do not yet include projected reductions for several important recent District rules shown in Table B-1. ARB's adjustments are presented in Table B-2.

B.2 EMISSIONS INVENTORY TABLES

Table B-3 Summer Average Nitrogen Oxides (NOx) Emissions Inventory, tons per day

(O3SIP (v1.06_RF980))

SUMMARY CATEGORY NAME	2002	2005	2008	2011	2012	2014	2017	2018	2020	2023
STATIONARY SOURCES										
FUEL COMBUSTION										
ELECTRIC UTILITIES	3.1	3.3	3.0	3.2	3.2	3.2	3.3	3.4	3.5	3.6
COGENERATION	10.6	10.0	7.1	7.3	7.4	7.5	7.8	7.9	8.2	8.4
OIL AND GAS PRODUCTION (COMBUSTION)	15.5	11.2	10.2	9.9	9.9	9.8	9.7	9.7	9.7	9.7
PETROLEUM REFINING (COMBUSTION)	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MANUFACTURING AND INDUSTRIAL	36.6	37.7	39.4	41.3	42.0	43.5	45.3	45.8	46.9	47.5
FOOD AND AGRICULTURAL PROCESSING	25.0	24.1	21.7	20.0	19.4	18.1	16.0	15.3	13.7	11.2
SERVICE AND COMMERCIAL	4.6	4.4	4.5	4.5	4.5	4.6	4.6	4.6	4.6	4.6
OTHER (FUEL COMBUSTION)	1.9	1.6	1.4	1.3	1.2	1.2	1.1	1.0	1.0	1.0
*** TOTAL FUEL COMBUSTION**	97.6	92.5	87.4	87.7	87.8	87.9	87.9	87.8	87.6	86.1
WASTE DISPOSAL										
SEWAGE TREATMENT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LANDFILLS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCINERATORS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SOIL REMEDIATION	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER (WASTE DISPOSAL)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
* TOTAL WASTE DISPOSAL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CLEANING AND SURFACE COATINGS										
LAUNDERING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DEGREASING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COATINGS AND RELATED PROCESS SOLVENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PRINTING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ADHESIVES AND SEALANTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER (CLEANING AND SURFACE COATINGS)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
* TOTAL CLEANING AND SURFACE COATINGS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PETROLEUM PRODUCTION AND MARKETING										
OIL AND GAS PRODUCTION	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
PETROLEUM REFINING	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
PETROLEUM MARKETING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER (PETROLEUM PRODUCTION AND MARKETING)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SUMMARY CATEGORY NAME	2002	2005	2008	2011	2012	2014	2017	2018	2020	2023
*** TOTAL PETROLEUM PRODUCTION AND MARKETING**	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
INDUSTRIAL PROCESSES										
CHEMICAL	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
FOOD AND AGRICULTURE	9.4	9.3	9.1	9.0	9.0	9.0	8.9	8.9	8.8	8.7
MINERAL PROCESSES	2.3	2.4	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2
METAL PROCESSES	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
WOOD AND PAPER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GLASS AND RELATED PRODUCTS	9.6	9.4	8.0	8.6	8.7	9.1	9.6	9.8	10.1	10.6
OTHER (INDUSTRIAL PROCESSES)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
*** TOTAL INDUSTRIAL PROCESSES**	21.8	21.5	20.2	20.8	21.0	21.5	22.1	22.3	22.7	23.3
**** TOTAL STATIONARY SOURCES**	119.8	114.5	108.0	108.9	109.3	109.9	110.5	110.6	110.8	109.9
AREA-WIDE SOURCES										
SOLVENT EVAPORATION										
CONSUMER PRODUCTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PESTICIDES/FERTILIZERS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ASPHALT PAVING / ROOFING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*** TOTAL SOLVENT EVAPORATION**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MISCELLANEOUS PROCESSES										
RESIDENTIAL FUEL COMBUSTION	3.2	3.1	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
FARMING OPERATIONS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CONSTRUCTION AND DEMOLITION	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAVED ROAD DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UNPAVED ROAD DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FUGITIVE WINDBLOWN DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MANAGED BURNING AND DISPOSAL	8.3	8.2	8.2	8.1	8.1	8.0	8.0	7.9	7.9	7.9
COOKING	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER (MISCELLANEOUS PROCESSES)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*** TOTAL MISCELLANEOUS PROCESSES**	11.5	11.3	11.1	11.1	11.1	11.0	11.0	11.0	11.0	10.9
**** TOTAL AREA-WIDE SOURCES**	11.5	11.3	11.1	11.1	11.1	11.0	11.0	11.0	11.0	10.9
MOBILE SOURCES										
ON-ROAD MOTOR VEHICLES										
LIGHT DUTY PASSENGER (LDA)	31.3	21.8	16.7	13.1	11.8	9.7	7.3	6.7	5.7	4.7
LIGHT DUTY TRUCKS - 1 (LDT1)	13.2	9.7	7.4	5.9	5.5	4.6	3.5	3.1	2.7	2.1
LIGHT DUTY TRUCKS - 2 (LDT2)	24.4	19.2	15.1	12.5	11.5	9.9	7.8	7.3	6.4	5.4
MEDIUM DUTY TRUCKS (MDV)	14.7	13.1	10.3	8.6	8.1	7.1	5.8	5.4	4.7	3.8

SUMMARY CATEGORY NAME	2002	2005	2008	2011	2012	2014	2017	2018	2020	2023
METAL PROCESSES	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6
WOOD AND PAPER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
GLASS AND RELATED PRODUCTS	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
OTHER (INDUSTRIAL PROCESSES)	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
*** TOTAL INDUSTRIAL PROCESSES**	16.3	16.5	17.0	17.5	17.7	18.1	18.7	18.9	19.3	20.1
**** TOTAL STATIONARY SOURCES**	87.6	79.8	81.5	82.8	83.2	84.3	85.8	86.3	87.3	89.4
AREA-WIDE SOURCES										
SOLVENT EVAPORATION										
CONSUMER PRODUCTS	25.1	23.5	24.0	25.1	25.6	26.6	28.1	28.6	29.6	31.2
ARCHITECTURAL COATINGS AND RELATED PROCESS SOLVENTS	13.6	11.1	11.4	11.7	11.8	12.0	12.4	12.5	12.8	13.3
PESTICIDES/FERTILIZERS	23.3	22.9	22.2	21.7	21.6	21.4	21.2	21.1	21.0	20.9
ASPHALT PAVING / ROOFING	2.9	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1
* TOTAL SOLVENT EVAPORATION	65.0	60.4	60.6	61.5	62.0	63.1	64.8	65.4	66.5	68.5
MISCELLANEOUS PROCESSES										
RESIDENTIAL FUEL COMBUSTION	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
FARMING OPERATIONS	62.0	65.4	68.7	72.5	74.0	76.9	81.4	82.9	85.9	90.3
CONSTRUCTION AND DEMOLITION	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAVED ROAD DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
UNPAVED ROAD DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FUGITIVE WINDBLOWN DUST	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
FIRES	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MANAGED BURNING AND DISPOSAL	13.7	13.6	13.5	13.5	13.4	13.4	13.3	13.2	13.2	13.1
COOKING	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6
OTHER (MISCELLANEOUS PROCESSES)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
*** TOTAL MISCELLANEOUS PROCESSES**	76.8	80.0	83.3	86.9	88.4	91.3	95.7	97.2	100.1	104.5
**** TOTAL AREA-WIDE SOURCES**	141.8	140.5	143.9	148.4	150.4	154.4	160.5	162.5	166.6	173.0
MOBILE SOURCES										
ON-ROAD MOTOR VEHICLES										
LIGHT DUTY PASSENGER (LDA)	40.0	31.1	23.9	19.1	17.5	14.6	11.6	10.8	9.6	8.4
LIGHT DUTY TRUCKS - 1 (LDT1)	14.2	11.6	9.1	7.4	6.9	6.0	4.8	4.5	4.0	3.6
LIGHT DUTY TRUCKS - 2 (LDT2)	17.7	15.8	13.2	12.0	11.5	10.4	9.1	8.8	8.3	7.8
MEDIUM DUTY TRUCKS (MDV)	9.5	8.6	7.2	6.7	6.5	6.1	5.6	5.4	5.1	4.7
LIGHT HEAVY DUTY GAS TRUCKS - 1 (LHDV1)	6.1	5.1	3.4	2.8	2.7	2.5	2.3	2.3	2.2	2.0
LIGHT HEAVY DUTY GAS TRUCKS - 2 (LHDV2)	1.3	1.2	0.9	0.8	0.7	0.6	0.5	0.5	0.5	0.4
MEDIUM HEAVY DUTY GAS TRUCKS (MHDV)	3.6	2.9	2.2	1.7	1.5	1.2	0.8	0.7	0.5	0.4
HEAVY HEAVY DUTY GAS TRUCKS (HHDV)	1.5	1.2	0.9	0.7	0.7	0.6	0.4	0.4	0.3	0.3
LIGHT HEAVY DUTY DIESEL TRUCKS - 1 (LHDV1)	0.0	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
LIGHT HEAVY DUTY DIESEL TRUCKS - 2 (LHDV2)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
MEDIUM HEAVY DUTY DIESEL TRUCKS (MHDV)	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3
HEAVY HEAVY DUTY DIESEL TRUCKS (HHDV)	14.6	16.0*	17.1	14.8	14.0	12.3	10.0	9.4	8.4	7.3
MOTORCYCLES (MCY)	3.6	6.1	5.5	5.3	5.3	5.3	5.4	5.5	5.6	5.9

GUIDE FOR ASSESSING AND MITIGATING AIR QUALITY IMPACTS

Prepared by
the Mobile Source/CEQA Section
of the Planning Division
of the San Joaquin Valley Air Pollution Control District
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Fresno, CA 93726

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This document is an advisory document, that provides Lead Agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. Copies and updates are available from the SJVAPCD Planning Division at (559) 230-5800. Questions on content should be addressed to either the Mobile Source/ CEQA Section at (559) 230-5800 or the SJVAPCD CEQA representative at the regional office that covers the county in which the project is located.

David L. Crow – Executive Director/Air Pollution Control Officer
Mark Boese – Deputy Air Pollution Control Officer
Robert Dowell – Director of Planning
Richard Milhorn – Planning Manager

SECTION 4 – THRESHOLDS OF SIGNIFICANCE

4.1 INTRODUCTION

This section provides SJVAPCD recommended thresholds for determining whether projects have significant adverse air quality impacts as defined by CEQA. Projects demonstrated to have significant adverse impacts are required to mitigate impacts to levels considered less than significant or to prepare an EIR. The thresholds are advisory, but may be adopted administratively or formally by a governing body as recommended by the Governor's Office of Planning and Research (OPR) document *Thresholds of Significance: Criteria for Determining Environmental Significance*. The following gives the basis for the thresholds for all different types of air quality impacts.

4.2 BASIS FOR THRESHOLDS OF SIGNIFICANCE

The SJVAPCD used the OPR definitions of significant environmental effect as a basis to establish air quality Thresholds of Significance for the San Joaquin Valley. Section 15382 of the CEQA Guidelines defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including ... air."

The Air Quality Section of Appendix G of the CEQA Guidelines (Environmental Checklist Form) contains a list of effects that may be deemed potentially significant. These are:

a) Conflict with or obstruct implementation of the applicable air quality plan;

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation;

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project is non-attainment under applicable federal or state ambient air quality standards (including releasing emissions which exceed quantitative thresholds for ozone precursors);

d) Expose sensitive receptors to substantial pollutant concentrations; or

e) Create objectionable odors affecting a substantial number of people.

For some types of impacts, the criteria listed above are straight forward, but in other cases, they require interpretation. A violation of air quality standards can be predicted for pollutants that can be modeled for atmospheric concentration. This is the case for carbon monoxide for which violations can be predicted using a dispersion model. Ozone, however, is the product of a photochemical reaction that may occur many miles away from the

source of emissions. Although atmospheric ozone models exist, they are only sensitive enough to register changes caused by the largest projects. What is more important for determining ozone impacts is a project's contribution to existing violations of the ozone standard in the SJV. By comparing a project's ozone precursor emissions with emission levels considered important under state law, this impact can be evaluated. One such level is the stationary source emissions offset threshold required by the CCAA. Additionally, the most common measure of significance for toxic air contaminants is an increase in cancer risk based on exposure levels for the nearest sensitive receptor, while odor impacts can be judged significant based on the number of complaints expected for each type of odor producing process. These criteria are described in greater detail below.

While CEQA Guidelines[26] state that an ironclad definition of a significant effect is not possible because the significance of an effect may vary with the setting, the SJVAPCD has determined that the setting, as referred to in CEQA, can be defined for air quality. Under California state law[27], the SJVAB is defined as a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health. As such, the SJVAPCD resolves that significance thresholds established herein are based on scientific and factual data. Therefore, the SJVAPCD recommends that these thresholds be used by Lead Agencies in making a determination of significance. However, it is still recognized that the final determination of whether or not a project has a significant effect is ultimately within the purview of the Lead Agency pursuant to CEQA Guidelines[28].

Basis for Ozone Precursor Thresholds. The entire SJVAB often violates state and federal ozone ambient air quality standards. Therefore, emissions related to an individual project, if substantial, will contribute to the existing violations of the ozone standards. The SJVAPCD defines "substantial contribution" for ozone precursor emissions in terms of CCAA requirements[29]. The SJVAPCD's New and Modified Stationary Source Review Rule - Offset Requirements for nitrogen oxides (NOx) and volatile organic compounds (VOCs) (in this document, equivalent to reactive organic gases [ROG])[30] reflects the CCAA requirements. Rule 2201 sets emissions thresholds above which stationary pollution sources must offset all emissions down to the thresholds. The offset thresholds vary depending on the severity of the pollution problem in each air basin and the type of pollutant. Areas categorized as severe ozone nonattainment areas such as the SJVAB have lower thresholds than areas categorized as having only a moderate ozone problem. The SJVAPCD staff also researched and evaluated many significance thresholds established by other air quality management agencies in California and found that most agencies use the same approach. Although it may be argued that any increase in pollutant emissions in an area with a severe pollution problem may be significant, a reasonable threshold is still

[26] CCR §15064(b)
[27] California Health and Safety Codes (CH&SC) §41100
[28] CCR §15064 (c)
[29] CH&SC §40920
[30] SJVAPCD Rule 2201, §4.2.3

needed to avoid unnecessarily burdening every project with a requirement to prepare an EIR, which is clearly not intended by CEQA nor desired by the SJVAPCD.

CEQA requires that in evaluating the significance of a project's potential air quality impacts, the Lead Agency shall consider both primary (direct) and secondary (indirect) consequences[31]. Primary impacts include emissions from project construction and emissions from motor vehicles traveling to and from the facility once it is operational. An example of a secondary impact would be the emissions associated with growth that may be facilitated by the expansion of a wastewater treatment plant.

Basis for PM-10 Thresholds. The entire SJVAB is a serious nonattainment area for PM-10 and any addition to the current PM-10 problem could be considered significant. However, the SJVAPCD has established regulations governing various activities that contribute to the overall PM-10 problem. The SJVAPCD has adopted a set of PM-10 Fugitive Dust Rules collectively called Regulation VIII. Several components of Regulation VIII specifically address fugitive dust generated by construction related activities. Therefore, the SJVAPCD has determined that any determination of significance with respect to construction emissions should be based on a consideration of the control measures to be implemented. From the perspective of the SJVAPCD, compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 (as appropriate, depending on the size and location of the project site) will constitute sufficient mitigation to reduce PM-10 impacts to a level considered less-than-significant.

4.3 THRESHOLDS OF SIGNIFICANCE

This section describes and establishes the SJVAPCD's Thresholds of Significance. These thresholds are recommended for use by Lead Agencies when preparing Initial Studies. If, during the preparation of the Initial Study, the Lead Agency finds that any of the following thresholds may be exceeded and cannot be mitigated, then a determination of significant air quality impact must be made and an EIR is required.

The SJVAPCD identifies thresholds that separate a project's short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project and are recognized to be short in duration. The long-term emissions are mainly related to the activities that will occur indefinitely as a result of project operations. In addition, CEQA[32] states that another condition that could establish a project as having a significant effect on the environment is effects that are considered "cumulatively considerable." Thresholds for project construction impacts, project operations, and cumulative impacts are discussed below.

[31] CCR §15064 (d)
[32] PRC §21083(b)

4.3.1 Threshold of Significance for Project Construction Impacts

Pollutants of Concern. A project's construction phase produces many types of emissions, but PM-10 is the pollutant of greatest concern.[33] PM-10 emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM-10, as well as affecting PM-10 compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. Asbestos can also be of concern during demolition activity associated with construction. The use of diesel powered construction equipment produces ozone precursor emissions and combustion related particulate emissions. Large construction projects lasting many months may exceed the District's annual threshold for NOx emissions and could expose area residents to diesel particulate. Contact the SJVAPCD for analysis recommendations for large construction projects.

Qualitative Approach. The SJVAPCD's approach to CEQA analyses of construction PM-10 impacts is to require implementation of effective and comprehensive control measures rather than to require detailed quantification of emissions (although a Lead Agency may elect to do so - see Section 5 of this document for guidance). PM-10 emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM-10 emissions from construction. The SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 (as appropriate, depending on the size and location of the project site) will constitute sufficient mitigation to reduce PM-10 impacts to a level considered less-than-significant.

Common Measures. All control measures listed in Table 6-2 (Regulation VIII Control Measures) are required for all construction sites by regulation. Table 6-3 lists additional measures that may be required due to sheer project size or proximity of the project to sensitive receptors. If all appropriate "enhanced control measures" in Table 6-3 will not be implemented for these very large or sensitive projects, then construction impacts would be considered significant (unless the Lead Agency provides a satisfactory detailed explanation as to why a specific measure is unnecessary). Table 6-3 also lists additional control measures (Optional Measures) that may be implemented if further emission reductions are deemed necessary by the Lead Agency.

[33] The SJVAPCD recognizes that construction equipment also emits carbon monoxide and ozone precursor emissions. However, the SJVAPCD has determined that these emissions may cause a significant air quality impact only in the cases of very large or very intense construction projects. The SJVAPCD will advise Lead Agencies on quantification procedures and significance on a case by case basis.

Demolition Asbestos Impacts. Project construction sometimes requires the demolition of existing buildings at the project site. Buildings often include materials containing asbestos. Airborne asbestos fibers pose a serious health threat if adequate control techniques are not carried out when the material is disturbed. The demolition, renovation, or removal of asbestos-containing materials is subject to the limitations of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations as listed in the Code of Federal Regulations[34] requiring notification and inspection. Most demolitions and many renovations are subject to an asbestos inspection prior to start of activity. The SJVAPCD's Compliance Division in the appropriate region should be consulted prior to commencing any demolition or renovation of any building to determine inspection and compliance requirements. Strict compliance with existing asbestos regulations will normally prevent asbestos from being considered a significant adverse impact.

4.3.2 Thresholds of Significance for Impacts from Project Operations

The term "project operations" refers to the full range of activities that can or may generate pollutant emissions when the development is functioning in its intended use. For projects such as office parks, shopping centers, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the projects represent the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes can be of greatest concern from an emissions standpoint. Significance thresholds discussed below address the impacts of these emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors and toxic air contaminants.

(Lead Agencies may refer to Section 5, for guidance on calculating emissions and determining whether significance thresholds for project operations may be exceeded, and thus whether more detailed air quality analysis may be needed.)

Ozone Precursor Emissions Threshold. Ozone precursor emissions from project operations should be compared to the thresholds provided in Table 4-1. Projects that emit ozone precursor air pollutants in excess of the levels in Table 4-1 will be considered to have a significant air quality impact.

Both direct and indirect emissions should be included when determining whether the project exceeds these thresholds. The following total emissions thresholds for air quality have been established by the SJVAPCD for project operations. Projects in the SJVAB with operation-related emissions that exceed these emission thresholds will be considered to have significant air quality impacts.

[34] 40CFR Part 61, Subpart M

Table 4-1
Ozone Precursor Emissions Thresholds
For Project Operations

Pollutant	Tons/yr.
ROG	10
NOx	10

Local Carbon Monoxide Concentrations Threshold. Estimated CO concentrations, as determined by an appropriate model, exceeding the California Ambient Air Quality Standard (CAAQS) of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for 1 hour will be considered a significant impact.

Odor Impacts Threshold. While offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and the SJVAPCD. Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact. Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc., warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. Analysis of potential odor impacts should be conducted for the following two situations:

- **Generators** – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, *and*

- **Receivers** – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.

The SJVAPCD has determined some common types of facilities that have been known to produce odors in the SJV. These are presented in Table 4-2 along with a reasonable distance from the source where the degree of odors could possibly be significant.

A Lead Agency should use Table 4-2 to determine whether the proposed project, either as a generator or a receiver, would result in sensitive receptors being within the distances indicated in Table 4-2. In addition, recognizing that this list of facilities is not meant to be all-inclusive, the Lead Agency should evaluate facilities not included in the table or projects separated by greater distances than indicated in Table 4-2 if warranted by local conditions or special circumstances. If the proposed project would result in sensitive receptors being located closer than the screening level distances indicated in Table 4-2, a more detailed analysis, as described in Section 5, should be conducted.

exception to this determination if special circumstances suggest that the emissions from any permitted or exempt source may cause a significant air quality impact. For example, if a source may emit objectionable odors, then odor impacts on nearby receptors should be considered a potentially significant air quality impact.

SJVAPCD assuming Lead Agency role. CEQA, generally, requires Responsible Agencies to use the environmental document prepared by the Lead Agency. However, CEQA Guidelines[42] list three occasions when a Responsible Agency must assume the Lead Agency role:

(1) The Lead Agency did not prepare any environmental documents for the project and the statute of limitations for challenging the project has elapsed;
(2) When a subsequent EIR is required and the Lead Agency has granted final approval of the project, and the statute of limitations has expired;
(3) The Lead Agency's environmental document is inadequate, and the Responsible Agency was not consulted, and the statute of limitations has expired.

In addition, there are occasions in which discretionary projects requiring SJVAPCD permit approval do not require discretionary approval from any other public agency. In these cases, the SJVAPCD would take on the duties of Lead Agency.

5.3 QUANTITATIVE EMISSIONS ANALYSIS LEVEL

This section describes the level of quantitative emissions analysis recommended for various sizes and types of land use projects. The SJVAPCD has established a three-tiered approach to determining significance related to a project's quantified ozone precursor emissions. Each tier or level requires a different degree of complexity of emissions calculation and modeling to determine air quality significance as described below. Table 5-1 summarizes the requirements for each level of analysis. Each level also requires the project to be analyzed for toxic air contaminants, hazardous materials, and odors. The potential for asbestos emissions must also be considered. For asbestos, size or complexity of the project does not matter. Any project that includes demolition or renovation of existing buildings needs to contact the SJVAPCD's Asbestos Coordinators at the appropriate SJVAPCD regional office.

Small Project Analysis Level (SPAL). The SJVAPCD pre-calculated the emissions on a large number and types of projects to identify the level at which they have no possibility of exceeding the emissions thresholds listed in Table 4-1. Table 5-2 provides this information in terms of vehicle trips required to exceed the SPAL threshold for five general land use categories[43]. Table 5-3 lists sizes of various specific development types meeting these criteria. Projects falling under these size thresholds qualify for what the SJVAPCD refers to as the Small Project Analysis Level (SPAL). No quantification of ozone precursor

[42] CCR §15052(a)
[43] Land use category descriptions are provided in the Institute of Transportation Engineers (ITE) Trip Generation report and in the URBEMIS 7G for Windows User's Guide.

emissions is needed for projects less than or equal to the sizes listed, however, other factors, such as toxic air contaminants, hazardous materials, asbestos, and odors still need to be analyzed. The SJVAPCD still wishes to review SPAL projects. Initial studies should note that the project is a SPAL project and provide a brief justification for the finding of no significant air quality impacts. For a multi-use project, if its combined trip generation rate exceeds the lowest applicable trip threshold from Table 5-2, an air quality analysis as described for the Cursory Analysis Level (CAL) should be prepared.

Note that even if a project is on the SPAL list, it does not relieve the Lead Agency from assessing a project for other potential significant air quality impacts. Some industrial and commercial projects may have impacts related to toxic air contaminants, hazardous materials, or odors. Projects containing sensitive receptors such as residential subdivisions, schools, hospitals, and so on must be assessed for exposure to pollutants from existing or planned industrial and commercial development. Any project that includes demolition or renovation of existing buildings needs to contact the SJVAPCD's Asbestos Coordinators at the appropriate SJVAPCD regional office.

When a project falls under the SPAL, the Lead Agency should use the information in the initial study checklist, or whatever format used, to justify a finding of less than significant air quality impacts. The initial study should also verify that no sensitive receptors would be exposed to substantial pollutant concentrations as a result of the project.

Table 5-1
Project Analysis Requirements

Analysis Level	Analysis Requirements
Small Project Analysis Level (SPAL)	• Verify project qualifies as a SPAL project (Table 5-2, 5-3). • Examine area surrounding project site for sources of toxic air contaminants, hazardous materials, and odors. • If industrial or commercial; verify that project is not a source of toxic air contaminants, hazardous materials, and odors. • Mitigate cumulative impacts with measures appropriate for the site. • If demolition or renovation of existing buildings, contact the District for asbestos requirements.
Cursory Analysis Level (CAL)	• Conduct URBEMIS 7G for Windows[44] model run. • Screen project for CO impact[45]; run CALINE4[46] if required. • Perform screening analysis of potential toxics, hazardous materials, and odor impacts if near a potential source or if project is a potential source of these pollutants. • If demolition or renovation of existing buildings, contact the District for asbestos requirements. • Identify mitigation measures and quantify with URBEMIS 7G for Windows when feasible. • If project is identified as potentially significant using the above screening methods, prepare full analysis.
Full Analysis Level (FAL)	• Conduct URBEMIS 7G for Windows model run for projects. • Conduct Direct Travel Impact Model (DTIM)[47] model run for large plans when a transportation model is available. • Screen project for CO impact/run CALINE4 if required • Perform screening analysis for potential toxics, hazardous materials, and odors. • If project is identified as a potentially significant source of toxic or hazardous pollutants, prepare a health risk assessment.

[44] URBEMIS for Windows is available on ARB's website (http://www.arb.ca.gov/urbemis7/urbemis7.htm)

[45] The SJVAPCD recommends using the Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) developed by UC Davis in December 1997. The program deals with project-level air quality analysis needed for federal conformity determinations, NEPA, and CEQA. The CO Protocol is available on Caltrans' website (http://www.dot.ca.gov/hq/env/air/extsoft.htm).

[46] CALINE4 (CAlifornia LINE Source Dispersion Model), is the standard modeling program used by Caltrans to assess air quality impacts near transportation facilities, in the rare cases when the screening procedures of the CO Protocol fail. It is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway. The SJVAPCD recommends the use of CL4 (Version 1.31). CL4 is a user interface designed to work with the CO Protocol, and can only be used for CO analysis. The program requires Windows 95/NT or higher and is available on Caltrans' website (http://www.dot.ca.gov/hq/env/air/extsoft.htm).

	• Prepare an air quality report containing: ▪ existing air quality conditions; ▪ analysis of project air quality impacts; mitigation measures; and ▪ results of modeling as technical appendices.

Table 5-2
Small Project Analysis Level (SPAL) in Vehicle Trips

Land Use Category	Project Size[48]
Residential Housing	1,453 trips/day
Commercial	1,673 trips/day
Office	1,628 trips/day
Institutional	1,707 trips/day
Industrial	1,506 trips/day

Table 5-3 (a)
Small Project Analysis Level (SPAL) by Project Type

Land Use Category	Project Size
Housing	
Single Family	152 Units
Apartments, Low Rise	220 Units
Apartments, High Rise	345 Units
Condominiums, General	270 Units
Condominiums, High Rise	335 Units
Mobile Homes	330 Units
Retirement Community	460 Units

[47] The Direct Travel Impact Model (DTIM) was developed by Caltrans in the late 1970's and is used in the State of California to calculate amounts of air pollutant emitted from motor vehicles and fuel consumption. The DTIM analysis is based on travel data produced by the Regional Transportation Model and on emission factors from the EMFAC Model. Some jurisdictions use the mobile emission inventory model MVEI7G when DTIM is not available. MVEI7G is available from the California Air Resources Board at www.arb.ca.gov/msei/mvei/mvei.htm.

[48] The project size numbers, and the trip generation numbers in Tables 5-2 and 5-3 were generated with URBEMIS 7G for Windows using default settings and are based on 90 percent of the ozone precursor emission thresholds. For definitions of land use categories listed above, see the URBEMIS 7G for Windows User's Guide or the latest edition of the Institute of Transportation Engineers, Trip Generation Manual.

Table 5-3 (b)
Small Project Analysis Level (SPAL) by Project Type

Land Use Category	Project Size
Office	
General Office Building	110,000 ft^2
Office Park	106,000 ft^2
Government (Civic Center)	57,000 ft^2
Government Office Building	23,000 ft^2
Medical Office Building	52,000 ft^2

Table 5-3 (c)
Small Project Analysis Level (SPAL) by Project Type

Land Use Category	Project Size
Retail	
Free Standing Discount Store	61,000 ft^2
Regional Shopping Center<57,000	11,000 ft^2
Discount Club Store	40,000 ft^2
Supermarket	9,000 ft^2
Convenience Market (w/o gas pumps)	2,000 ft^2
Convenience Market (w/ gas pumps)	2,000 ft^2
Gasoline/Service Station	10 pumps
Quality Restaurant	20,000 ft^2
Restaurant (high turnover sit-down)	9,000 ft^2
Fast Food Restaurant	2,000 ft^2
Day Care Center	22,000 ft^2
Bank (w/ drive-through)	10,000 ft^2
Racquet/Health Club	44,000 ft^2
Hotel	200 Units
Motel	170 Units

1.0 Introduction

The AOC proposes to acquire approximately 7 acres of property in the city of Hanford, California, to construct a new, 3-story, 12-courtroom courthouse and associated parking, and operate the courthouse for the Superior Court of California (Superior Court), Kings County. The new courthouse will become the courthouse facility for the Kings County Superior Court, and will replace five existing unsafe, overcrowded, and physically deficient facilities in the cities of Hanford and Lemoore, Kings County.

The proposed new courthouse will increase the number of Superior Court courtrooms from nine to twelve, and will increase the court facility size from approximately 52,000 building gross square feet (BGSF) to approximately 145,000 BGSF. The new facility will provide court support space for court administration, county clerk, court security operations and holding; and building support space. The proposed project also includes construction of a surface parking lot with 360 parking spaces for support staff, visitors, and jurors. The proposed project will be capable of accommodating the Superior Court's future growth for two future new judgeships.

The proposed project will generated criteria pollutant emissions and greenhouse gases (GHG) during construction and operations. The air quality impacts are described in Section 4.3 and 4.7 of the Initial Study and Mitigated Negative Declaration for the new Hanford Courthouse. As part of the impact discussion, these two sections presented estimated criteria pollutant and GHG emissions during the construction and operation of the proposed project. The following describes the method used to quantify these emissions and presents the final estimates.

2.0 Construction Emissions

2.1 CRITERIA POLLUTANT EMISSIONS

Construction of the proposed project will generate short-term emissions of criteria pollutant emissions. In particular exhaust emissions will be generated from the use of construction equipment that burns fossil fuels such as backhoes and generators and will include ozone precursors [volatile organic compounds (VOC) and nitrogen oxides (NOx)], carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter equal to or less than 10 micrometers (PM_{10}), and particulate matter with an aerodynamic diameter equal to or less than 2.5 micrometers ($PM_{2.5}$). In addition, ground disturbance activities such as grading will generate fugitive dust that includes PM_{10} and $PM_{2.5}$. Use of coatings during painting will also result in VOC emissions.

These criteria pollutant emissions were estimated using the URBEMIS 2007 (version 9.2.4) software. The estimates from URBEMIS are, in part, based on the California Air Resources Board's EMFAC2007 and the OFFROAD2007 emission models. The EMFAC2007 model estimates emission from on-road vehicles such as passenger vehicles, and the OFFROAD2007 model estimates emissions from off-road equipment such as backhoes and forklifts. [1]

URBEMIS defaults as recommended by the San Joaquin Valley Air Pollution Control District (SJVAPCD) were used.[2] In addition, proposed project specific data were input into the model such as data on construction schedule, acreage disturbed, material exported, and square footage to be built. Some of the proposed project specific data used in URBEMIS include the information presented in the introduction section above. The other proposed project specific data are summarized on Table 1.

[1] See URBEMIS website for more details: http://www.urbemis.com

[2] SJVAPCD website last accessed on August 4, 2010:
http://www.valleyair.org/ISR/ISRResources.htm#Models

Table 1: Proposed Project Specific Data for Construction

Construction Phase*	Construction Activity	Projected Duration (Months)	Notes
Mobilization	Preparations for construction	0.5	Staging area estimated to cover approximately 10% of site [(a)]
Demolition[(b)]	Removal of pavement and utilities. No building demolition.	0.5	
Mass grading & excavation	Excavate basement and foundation and foundation construction	1	The mass grading and excavation area estimated to cover approximately 0.6 acres, and operations estimated to export approximately 24,500 cubic yards of material. [(a)]
Trenching	Relocate utilities	1	
Building construction	Assemble frame and floors; Install exterior and roof; Finish interior	16	
Coatings	Exterior and interior coating	3	Spray paint and apply water sealants with brushes.
Paving	Install concrete drives, sidewalks, plazas, and other structures. Install asphalt parking lot.	0.5	Includes concrete and asphalt installation.
Fine grading	Grade and contour site	0.25	Grading area estimated to cover approximately 0.25 acre. [(a)]
Finish	Inspections, testing, clean-up, and other activities	1	

Note:
(a) Acreage listed above assumed to be daily acreage disturbed.
(b) Demolition emissions assumed equivalent to exhaust emissions from construction equipment that would be used to demolish a building on a one acre land.

The last "Finish" phase was not included in the URBEMIS model because emission from this phase are expected to be small compared to the other

phases. On the other hand, for conservatism, the first phase "mobilization" was estimated assuming activities would be equivalent to fine grading over ten percent of the land (0.7 acres). In reality, the level of activity and ground disturbance during mobilization are expected to be much less than a typical grading phase. Mobilization is assumed to start on October 1, 2013 with total construction to last approximately 24 months.

Table 2 summarizes the predicted criteria pollutant emissions (in terms of short tons) for the proposed project during construction.

Table 2: Estimated Criteria Pollutant Emissions During Construction

Source	VOC [(a)] (short tons/year)	NOx (short tons/year)	CO (short tons/year)	SO_2 (short tons/year)	PM_{10} Dust [(b)] (short tons/year)	PM_{10} Exhaust (short tons/year)	$PM_{2.5}$ Dust [(b)] (short tons/year)	$PM_{2.5}$ Exhaust (short tons/year)
Construction Emissions								
2013	0.09	0.82	0.46	0.00	0.27	0.04	0.06	0.03
2014	0.40	1.88	3.05	0.00	0.01	0.12	0.00	0.11
2015	1.69	0.77	1.21	0.00	0.02	0.05	0.00	0.04
Total Construction Emissions	2.18	3.47	4.72	0	0.3	0.21	0.06	0.18

Note:

(a) URBEMIS presents reactive organic gas (ROG) emissions. ROG and VOC are similar and so ROG is assumed equivalent to VOC.

(b) Fugitive emissions assume water twice daily

2.2 GHG EMISSIONS

During construction, the primary source of GHG emissions are from the combustion of fossil fuels by construction equipment, and mainly consist of carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These GHG have different potential for increasing temperatures in the atmosphere, and this relative potential is characterized by their global warming potential (GWP). The GWP is a relative scale where CO_2 is assigned a GWP of one, and CH_4 and N_2O are assigned a GWP of about 21 and 310, respectively[3]. While methane and nitrous oxide have a greater contribution to global warming than CO_2 on a per mass basis, because CO_2 is emitted in such larger quantities CO_2 tends to be the dominating GHG during the combustion of fossil fuels.

[3] CARB GHG Mandatory Reporting Rule, Title 17, CCR, Subchapter 10, Article 2, Sections 95100 to 95133.

In addition to criteria pollutant emissions, URBEMIS also estimates CO_2 emissions. CH_4 and N_2O emissions were estimated using CO_2, CH_4, and N_2O contained in the California Climate Action Registry General Reporting Protocol, Version 3.1[4]. More specifically, the CO_2 emission factor in terms of kilograms of CO_2 per gallons of diesel burned was used to estimate quantity of fuel combusted assuming that only diesel is burned. With the estimated quantity of fuel combusted, the CH_4 and N_2O emission factors were used to estimate CH_4 and N_2O. While assuming only diesel fuel is burned is a simplification since a portion of the emission is from gasoline powered equipment and on-road vehicles, this represents a reasonable estimated considering CO_2 contributes to the majority of GHG emissions. In, as summarized on Table 3, CO_2 is approximately 99 percent of the total CO_{2e}. Please note that the GHG emissions are presented in terms of metric tones rather than short tons.

[4] California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009.

Table 3: Estimated Greenhouse Gas Emissions During Construction

Source	CO_2 (Metric tons/year)	N_2O (Metric tons/year)	N_2O (Metric Tons of Carbon Dioxide Eq/yr)	CH_4 (Metric tons/year)	CH_4 (Metric Tons of Carbon Dioxide Equiv./yr)	Total Metric Tons of Carbon Dioxide Equiv./yr
Construction Emissions						
2013	105.05	0.003	0.83	0.01	0.13	106.01
2014	381.95	0.010	3.03	0.02	0.46	385.44
2015	162.38	0.004	1.29	0.01	0.19	163.86
Total Construction Emissions	649.38	0.017	5.16	0.04	0.78	655.32

Notes:

(a) Emission factors used listed below and are from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009:

CO_2=10.15 kg/gallon

N_2O=0.26 g/gallon

CH_4=0.58 g/gallon

(b) CO2 Equivalent values calculated using the Global Warming Potentials listed in Appendix A-4 of Title 17 California Code of Regulations Subchapter 10, Article 2 (referred to as AB-32):

CO_2=1

N_2O=310

CH_4=21

3.0 Operational Emissions

3.1 CRITERIA POLLUTANT EMISSIONS

The primary source of criteria pollutant emissions for the proposed project is expected to be personnel vehicles used to travel to the courthouse. The proposed project is expected to generate approximately 2,092 additional one-way trips to and from the proposed courthouse. The new trips will result in more fuel being used and more emissions of VOC, NOx, CO, SO_2, PM_{10} and $PM_{2.5}$ emissions. The proposed project will also generate criteria pollutant emissions from natural gas combustion for heating and landscaping and painting activities.

Similar to the construction emissions, operational criteria pollutant emissions were also estimated using the URBEMIS 2007 (version 9.2.4) software. The proposed courthouse was modeled as a Government Office Building in a rural setting. URBEMIS defaults as recommended by the San Joaquin Valley Air Pollution Control District (SJVAPCD) were used except that pass by trips was turned off to conservatively assume that all the new trips were made only for the purpose of going to the courthouse.[5] Also, the vehicle fleet mix was modified to reflect that the majority of the new trips would be people going to the courthouse in light to medium sized vehicles.

Table 4 summarizes the predicted operational criteria pollutant emissions (in terms of short tons) for the proposed project.

Table 4: Estimated Operational Criteria Pollutant Emissions

Source	VOC[(a)] (short tons/year)	NOx (short tons/year)	CO (short tons/year)	SO_2 (short tons/year)	PM_{10} (short tons/year)	$PM_{2.5}$ (short tons/year)
Emission Source						
Passenger Vehicles	1.64	2.22	23.70	0.03	2.40	0.52
Natural Gas	0.01	0.18	0.15	0.00	0.00	0.00
Landscape	0.01	0.00	0.14	0.00	0.00	0.00
Architectural Coatings	0.15	0.00	0.00	0.00	0.00	0.00
Total Operational Emissions	1.81	2.40	23.99	0.03	2.40	0.52

Note:

(a) URBEMIS presents reactive organic gas (ROG) emissions. ROG and VOC are similar and so ROG is assumed equivalent to VOC.

[5] SJVAPCD website last accessed on August 4, 2010: http://www.valleyair.org/ISR/ISRResources.htm#Models

3.2 GHG EMISSIONS

Greenhouse gas emissions from the proposed project are expected to increase due to the expected increase in vehicle miles traveled (VMT's) and the increase in energy and water demand. URBEMIS 2007 was used to estimate the amount of CO_2 from the increase in VMT's and the increase in natural gas consumption. The data from URBEMIS was then used to calculate the volume of gasoline and natural gas consumed as well as the emissions of other greenhouse gases, specifically CH_4 and N_2O. The calculation of greenhouse gas emissions from increased electrical usage are based on project specific information, emission factors from the California Climate Action Registry (CCAR) Reporting Protocol Version 3.1, January 2009, data from the Department of Energy and the California's Water – Energy Relationship Document[6],[7], which was used to estimate the amount of electricity required to meet the demands of the proposed courthouse. The estimated GHG emissions related to operation of the proposed courthouse are presented in Table 5 below. Please note that the GHG emissions are presented in terms of metric tones rather than short tons.

[6] DOE Energy Efficiency and Renewable Program DOE http://www1.eere.energy.gov/femp/pdfs/waterefficiency_fedoffices.pdf , accessed on September 09, 2010

[7] California's Water – Energy Relationship, California Energy Commission, November 2005

Table 5: Estimated Greenhouse Gas Operational Emissions

Source	CO_2 (Metric tons/year)	N_2O (Metric tons/year)	N_2O (Metric Tons of Carbon Dioxide Eq/yr) [f]	CH_4 (Metric tons/year)	CH_4 (Metric Tons of Carbon Dioxide Equiv./yr) [f]	Total Metric Tons of Carbon Dioxide Equiv./yr
Emission Source						
Mobile Sources[a]	2,384.70	0.027	8.48	0.00	0.09	2,393.27
Area Sources/Natural Gas Combustion[b]	192.28	0.018	5.62	0.000	0.01	197.91
Electrical Demand[c,d]	384.46	0.004	1.33	0.02	0.34	386.13
Water Demand[c,e]	309.31	0.003	1.07	0.01	0.27	310.65
Total Operational Emissions	3,270.75	0.05	16.50	0.03	0.70	3,287.95

Notes:

(a) Emission factors used for mobile source emissions estimates are listed below and are from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009:

CO_2 = 8.81 kg/gallon, N_2O = 0.101 g/gallon, CH_4 = 0.0157 g/gallon

(b) Emission factors used for natural gas combustion emissions estimates are listed below and are from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009:

CO_2 = 53.06 kg/MMBTU, N_2O = 0.005 kg/MMBTU, CH_4 = 0.0001 kg/ MMBTU

(c) Emission factors used for emissions estimates for electricity consumption are listed below and are from California Climate Action Registry General Reporting Protocol, Version 3.1, January 2009:

CO_2 = 724.12 lbs/MWh, N_2O = 0.0081 lbs/MWh, CH_4 = 0.0302 lbs/MWh

(d) Electrical usage at the proposed courthouse is based on the information provided by Jerry Ripperda (Environmental Analyst for the Office of Court Construction and Management) in an email dated September 01, 2010.

(e) Electrical usage required to meet the increased water demand is based on the following:

(1) The estimated number of additional employees is 43 (Project Specific Data),

(2) Water demand at federal buildings is 15 GPD per employee(DOE http://www1.eere.energy.gov/femp/pdfs/waterefficiency_fedoffices.pdf , accessed on September 09, 2010)

(3) Electrical usage per thousand gallons of water supplied is 4000 kWh/Mg (Table C-6 of the California Energy Commissions California's Water – Energy Relationship Document).

(f) CO2 Equivalent values calculated using the Global Warming Potentials listed in Appendix A-4 of Title 17 California Code of Regulations Subchapter 10, Article 2 (referred to as AB-32):

CO_2=1, N_2O=310, CH_4=21

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: \\wewalfs02\dataWAL\Projects\0061285 JCC\0105673 JCC-AOC T&M Projects\RFP_317 Hanford\CEQA\Air Quality-GHG\URBEMIS INPUT\HanfordSuperiorCourt.urb924

Project Name: Hanford Superior Court

Project Location: Kings County

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2013 TOTALS (tons/year unmitigated)	0.09	0.82	0.46	0.00	0.27	0.04	0.30	0.06	0.03	0.09	115.80
2013 TOTALS (tons/year mitigated)	0.09	0.82	0.46	0.00	0.21	0.04	0.25	0.04	0.03	0.08	115.80
Percent Reduction	0.00	0.00	0.00	0.00	19.61	0.00	17.17	19.53	0.00	12.03	0.00
2014 TOTALS (tons/year unmitigated)	0.40	1.88	3.05	0.00	0.01	0.12	0.13	0.00	0.11	0.11	421.03
2014 TOTALS (tons/year mitigated)	0.40	1.88	3.05	0.00	0.01	0.12	0.13	0.00	0.11	0.11	421.03
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2015 TOTALS (tons/year unmitigated)	1.69	0.77	1.21	0.00	0.02	0.05	0.07	0.00	0.04	0.05	178.99
2015 TOTALS (tons/year mitigated)	1.69	0.77	1.21	0.00	0.02	0.05	0.07	0.00	0.04	0.05	178.99
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	0.17	0.18	0.29	0.00	0.00	0.00	211.95
TOTALS (tons/year, mitigated)	0.10	0.18	0.28	0.00	0.00	0.00	211.95
Percent Reduction	41.18	0.00	3.45	NaN	NaN	NaN	0.00

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.64	2.22	23.70	0.03	2.40	0.52	2,628.64

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (tons/year, unmitigated)	1.81	2.40	23.99	0.03	2.40	0.52	2,840.59

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

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2013	0.09	0.82	0.46	0.00	0.27	0.04	0.30	0.06	0.03	0.09	115.80
Fine Grading 10/01/2013-11/01/2013	0.03	0.25	0.15	0.00	0.14	0.01	0.16	0.03	0.01	0.04	28.85
Fine Grading Dust	0.00	0.00	0.00	0.00	0.14	0.00	0.14	0.03	0.00	0.03	0.00
Fine Grading Off Road Diesel	0.03	0.25	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	26.97
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.88
Demolition 11/01/2013-11/15/2013	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.71
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Mass Grading 11/16/2013-12/15/2013	0.04	0.46	0.22	0.00	0.12	0.02	0.14	0.03	0.02	0.04	71.01
Mass Grading Dust	0.00	0.00	0.00	0.00	0.12	0.00	0.12	0.03	0.00	0.03	0.00
Mass Grading Off Road Diesel	0.03	0.21	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	22.47
Mass Grading On Road Diesel	0.02	0.25	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	46.97
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57
Trenching 12/16/2013-01/15/2014	0.01	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.23
Trenching Off Road Diesel	0.01	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.29
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94

2014	0.40	1.88	3.05	0.00	0.01	0.12	0.13	0.00	0.11	0.11	421.03
Trenching 12/16/2013-01/15/2014	0.01	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.29
Trenching Off Road Diesel	0.01	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.43
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Building 01/16/2014-05/15/2015	0.39	1.81	3.00	0.00	0.01	0.11	0.12	0.00	0.10	0.11	410.74
Building Off Road Diesel	0.33	1.62	1.24	0.00	0.00	0.10	0.10	0.00	0.09	0.09	202.65
Building Vendor Trips	0.01	0.09	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.29
Building Worker Trips	0.05	0.10	1.66	0.00	0.01	0.01	0.01	0.00	0.00	0.01	181.80

2015	1.69	0.77	1.21	0.00	0.02	0.05	0.07	0.00	0.04	0.05	178.99
Building 01/16/2014-05/15/2015	0.14	0.65	1.09	0.00	0.00	0.04	0.04	0.00	0.04	0.04	159.40
Building Off Road Diesel	0.12	0.58	0.47	0.00	0.00	0.04	0.04	0.00	0.03	0.03	78.63
Building Vendor Trips	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20
Building Worker Trips	0.02	0.03	0.59	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.57
Coating 05/16/2015-08/15/2015	1.53	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80
Architectural Coating	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80
Asphalt 08/16/2015-08/31/2015	0.01	0.07	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.58
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.07	0.05	0.00	0.00	0.01	0.01	0.00	0.00	0.00	7.00
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72
Fine Grading 09/01/2015-09/08/2015	0.01	0.05	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.01	7.21
Fine Grading Dust	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47

Phase Assumptions

Phase: Demolition 11/1/2013 - 11/15/2013 - Default Fine Site Grading Description

Building Volume Total (cubic feet): 0

Building Volume Daily (cubic feet): 0

On Road Truck Travel (VMT): 0

Off-Road Equipment:

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1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 10/1/2013 - 11/1/2013 - Surrogate for mobilization assuming 10% acreage disturbed

Total Acres Disturbed: 0.6

Maximum Daily Acreage Disturbed: 0.6

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Fine Grading 9/1/2015 - 9/8/2015 - Type Your Description Here

Total Acres Disturbed: 0.25

Maximum Daily Acreage Disturbed: 0.25

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Mass Grading 11/16/2013 - 12/15/2013 - Default Paving Description

Total Acres Disturbed: 0.6

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Maximum Daily Acreage Disturbed: 0.6

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 1166.67

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 12/16/2013 - 1/15/2014 - Type Your Description Here

Off-Road Equipment:

2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day

1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 8/16/2015 - 8/31/2015 - Type Your Description Here

Acres to be Paved: 1.75

Off-Road Equipment:

4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day

1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day

1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day

1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 1/16/2014 - 5/15/2015 - Type Your Description Here

Off-Road Equipment:

1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day

2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day

1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day

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1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 5/16/2015 - 8/15/2015 - Type Your Description Here

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 130

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 130

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2

2013	0.09	0.82	0.46	0.00	0.21	0.04	0.25	0.04	0.03	0.08	115.80
Fine Grading 10/01/2013-11/01/2013	0.03	0.25	0.15	0.00	0.14	0.01	0.16	0.03	0.01	0.04	28.85
Fine Grading Dust	0.00	0.00	0.00	0.00	0.14	0.00	0.14	0.03	0.00	0.03	0.00
Fine Grading Off Road Diesel	0.03	0.25	0.13	0.00	0.00	0.01	0.01	0.00	0.01	0.01	26.97
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.88
Demolition 11/01/2013-11/15/2013	0.01	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.71
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Off Road Diesel	0.01	0.03	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.85
Demo On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demo Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Mass Grading 11/16/2013-12/15/2013	0.04	0.46	0.22	0.00	0.07	0.02	0.09	0.01	0.02	0.03	71.01
Mass Grading Dust	0.00	0.00	0.00	0.00	0.07	0.00	0.07	0.01	0.00	0.01	0.00
Mass Grading Off Road Diesel	0.03	0.21	0.11	0.00	0.00	0.01	0.01	0.00	0.01	0.01	22.47
Mass Grading On Road Diesel	0.02	0.25	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	46.97
Mass Grading Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.57
Trenching 12/16/2013-01/15/2014	0.01	0.09	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.23
Trenching Off Road Diesel	0.01	0.08	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.29
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94

2014	0.40	1.88	3.05	0.00	0.01	0.12	0.13	0.00	0.11	0.11	421.03
Trenching 12/16/2013-01/15/2014	0.01	0.07	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.29
Trenching Off Road Diesel	0.01	0.07	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.43
Trenching Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Building 01/16/2014-05/15/2015	0.39	1.81	3.00	0.00	0.01	0.11	0.12	0.00	0.10	0.11	410.74
Building Off Road Diesel	0.33	1.62	1.24	0.00	0.00	0.10	0.10	0.00	0.09	0.09	202.65
Building Vendor Trips	0.01	0.09	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	26.29
Building Worker Trips	0.05	0.10	1.66	0.00	0.01	0.01	0.01	0.00	0.00	0.01	181.80

2015	1.69	0.77	1.21	0.00	0.02	0.05	0.07	0.00	0.04	0.05	178.99
Building 01/16/2014-05/15/2015	0.14	0.65	1.09	0.00	0.00	0.04	0.04	0.00	0.04	0.04	159.40
Building Off Road Diesel	0.12	0.58	0.47	0.00	0.00	0.04	0.04	0.00	0.03	0.03	78.63
Building Vendor Trips	0.00	0.03	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.20
Building Worker Trips	0.02	0.03	0.59	0.00	0.00	0.00	0.01	0.00	0.00	0.00	70.57
Coating 05/16/2015-08/15/2015	1.53	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80
Architectural Coating	1.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.80
Asphalt 08/16/2015-08/31/2015	0.01	0.07	0.06	0.00	0.00	0.01	0.01	0.00	0.01	0.01	9.58
Paving Off-Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.01	0.07	0.05	0.00	0.00	0.01	0.01	0.00	0.00	0.00	7.00
Paving On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Paving Worker Trips	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72
Fine Grading 09/01/2015-09/08/2015	0.01	0.05	0.04	0.00	0.02	0.00	0.02	0.00	0.00	0.01	7.21
Fine Grading Dust	0.00	0.00	0.00	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00
Fine Grading Off Road Diesel	0.01	0.05	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.74
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 11/16/2013 - 12/15/2013 - Default Paving Description

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.18	0.15	0.00	0.00	0.00	211.70
Hearth							
Landscape	0.01	0.00	0.14	0.00	0.00	0.00	0.25
Consumer Products	0.00						
Architectural Coatings	0.15						
TOTALS (tons/year, unmitigated)	0.17	0.18	0.29	0.00	0.00	0.00	211.95

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Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Mitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.01	0.18	0.15	0.00	0.00	0.00	211.70
Hearth							
Landscape	0.01	0.00	0.13	0.00	0.00	0.00	0.25
Consumer Products	0.00						
Architectural Coatings	0.08						
TOTALS (tons/year, mitigated)	0.10	0.18	0.28	0.00	0.00	0.00	211.95

Area Source Mitigation Measures Selected

Mitigation Description	Percent Reduction
Percent of Residential Landscape Equipment that are Electrically Powered and have Electrical Outlets at the the Front and Rear of Residences	20.00
Percent of Commercial and Industrial Landscape Equipment that are Electrically Powered and have Electrical Outlets Available	3.00
For Nonresidential Interior Use Low VOC Coating	45.60
For Nonresidential Exterior Use Low VOC Coating	45.60

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Goverment office building	1.64	2.22	23.70	0.03	2.40	0.52	2,628.64
TOTALS (tons/year, unmitigated)	1.64	2.22	23.70	0.03	2.40	0.52	2,628.64

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2015 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Goverment office building		14.43	1000 sq ft	145.00	2,092.35	15,504.31
					2,092.35	15,504.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	48.4	0.2	99.6	0.2
Light Truck < 3750 lbs	15.3	0.8	94.6	4.6
Light Truck 3751-5750 lbs	23.3	0.5	99.5	0.0
Med Truck 5751-8500 lbs	13.0	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	76.2	23.8
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	57.1	42.9
Med-Heavy Truck 14,001-33,000 lbs	0.0	0.0	10.0	90.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	1.9	98.1
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	48.8	51.2	0.0

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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Goverment office building				10.0	5.0	85.0

Operational Changes to Defaults

The urban/rural selection has been changed from Urban to Rural

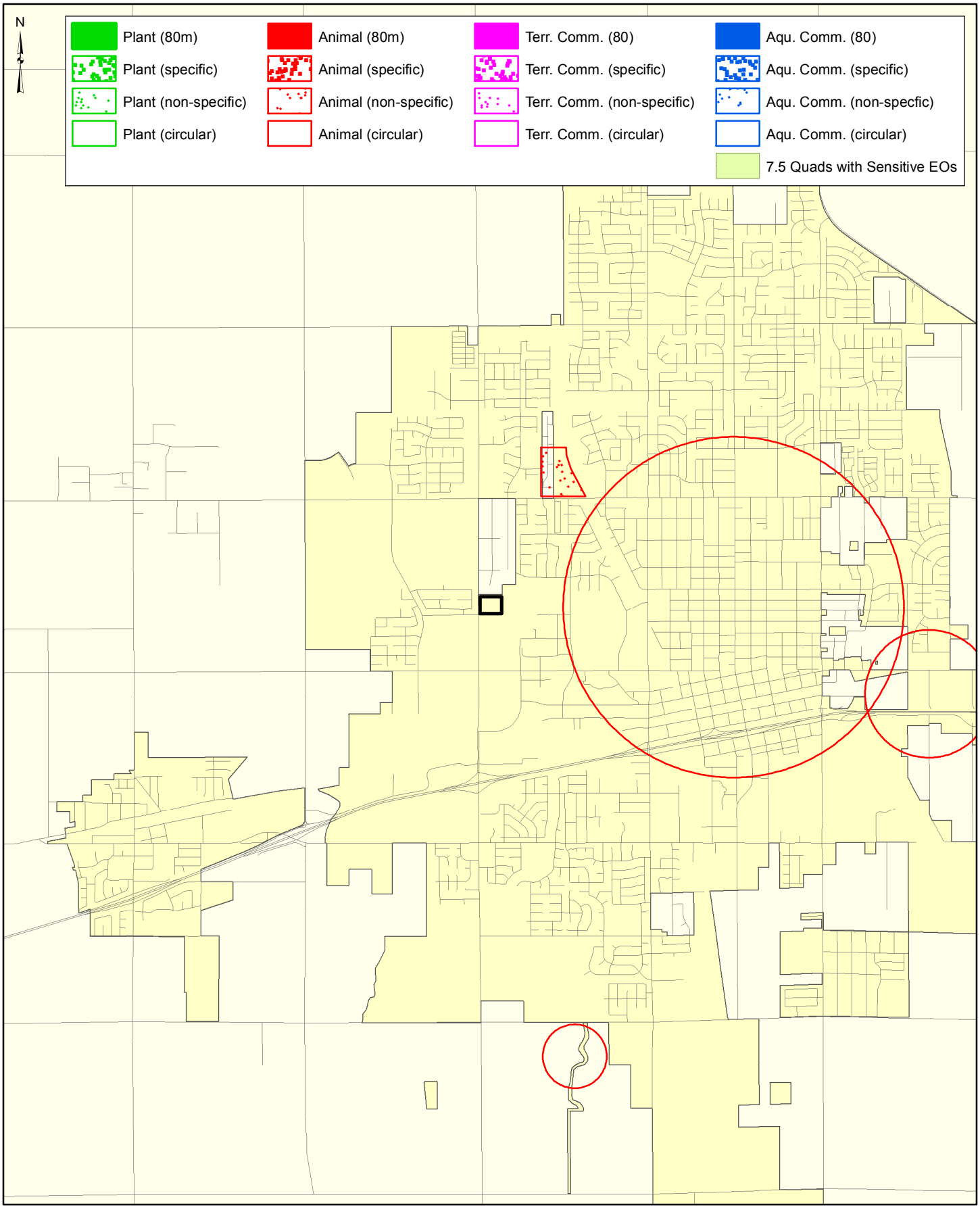


Figure _

Special-Status Species and Sensitive Natural Communities
Administrative Office of the Courts
Hanford, California

SOURCE: California Department of Fish & Game;
California Natural Diversity Data Base (CNDDB).

ERM 06/10

Occurrence Report

California Department of Fish and Game

California Natural Diversity Database

Map Index Number: 68494
Key Quad: Hanford (3611936)
Occurrence Number: 37
EO Index: 68794
Element Code: AMACC05030
Occurrence Last Updated: 2007-06-27

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None
CNDDB Element Ranks: **Global:** G5
State: S4?
CNPS List:
Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER & OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1991-04-22
Last Survey Date: 1991-04-22
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

HANFORD.

Detailed Location:

MAPPED ACCORDING TO LAT/LONG COORDINATES PROVIDED BY MANIS WITH UNCERTAINTY OF 30M.

Ecological:

Threats:

General:

3 FEMALE SPECIMENS (MVZ #182406-182408) COLLECTED BY WILLIAM E. RAINEY ON 26 DEC 1990 AND 2 APR 1991.

PLSS: T18S, R21E, Sec. 25 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-11 N4024174 E262491
Latitude/Longitude: 36.33335 / -119.64614
Elevation (feet):

County Summary:	Quad Summary:
Kings	Hanford (3611936)

Sources:

MAN04S0029 MAMMAL NETWORKED INFORMATION SYSTEM PRINTOUT OF LASIURUS CINEREUS SPECIMENS FOR CALIFORNIA FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, MSB, LSU, KU, LACM, UWBM, FMNH AND TTU. 2004-12-10

Occurrence Report

California Department of Fish and Game

California Natural Diversity Database

Map Index Number: 66338
EO Index: 66435
Key Quad: Hanford (3611936)
Element Code: AMAJA03041
Occurrence Number: 214
Occurrence Last Updated: 2007-05-07

Scientific Name: *Vulpes macrotis mutica*
Common Name: San Joaquin kit fox

Listing Status: **Federal:** Endangered
State: Threatened
CNPS List:
Other Lists:

CNDDB Element Ranks: **Global:** G4T2T3
State: S2S3

General Habitat:

ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro Habitat:

NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Last Date Observed: 2000-08-15
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2000-08-15
Occurrence Rank: Good
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

SOUTH OF HOUSTON AVE AND WEST OF 11TH AVENUE. VICINITY OF SAND SLOUGH. SOUTH OF HANFORD.

Detailed Location:

Ecological:

FOX WAS OBSERVED IN A WALNUT ORCHARD.

Threats:

General:

1 ADULT OBSERVED ON 15 AUG 2000.

PLSS: T19S, R21E, Sec. 11 (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-11 N4020008 E260866
Latitude/Longitude: 36.29543 / -119.66295
Elevation (feet): 235

County Summary:

Kings

Quad Summary:

Hanford (3611936)

Sources:

GRA00F0013 GRAY, GEOFFREY & PAUL STURM FIELD SURVEY FORM FOR VULPES MACROTIS MUTICA 2000-08-15

Occurrence Report

California Department of Fish and Game

California Natural Diversity Database

Map Index Number: 67800
EO Index: 67952
Key Quad: Guernsey (3611926)
Element Code: AMAJA03041
Occurrence Number: 919
Occurrence Last Updated: 2007-01-17

Scientific Name: *Vulpes macrotis mutica*
Common Name: San Joaquin kit fox

Listing Status: **Federal:** Endangered
State: Threatened
CNPS List:
Other Lists:

CNDDB Element Ranks: **Global:** G4T2T3
State: S2S3

General Habitat:

ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro Habitat:

NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Last Date Observed: 1975-07-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1975-07-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:

ABOUT 6MI S OF HANFORD, JUST NW OF INTERSECTION OF JERSEY AVE AND 10TH AVE.

Detailed Location:

Ecological:

Threats:

General:

SIGHTING SOMETIME FROM 1972 THROUGH JUL 1975.

PLSS: T19S, R21E, Sec. 25 (M)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N4014557 E262661
Latitude/Longitude: 36.24678 / -119.64132
Elevation (feet): 230

County Summary:

Kings

Quad Summary:

Guernsey (3611926), Hanford (3611936)

Sources:

MOR75M0001 MORRELL, S.H. MAPS (6) SHOWING SAN JOAQUIN KIT FOX DISTRIBUTION AND ABUNDANCE IN 1975. 1975-XX-XX

Occurrence Report

California Department of Fish and Game

California Natural Diversity Database

Map Index Number: 67805
EO Index: 67955
Key Quad: Remnoy (3611935)
Element Code: AMAJA03041
Occurrence Number: 922
Occurrence Last Updated: 2007-02-20

Scientific Name: *Vulpes macrotis mutica*
Common Name: San Joaquin kit fox

Listing Status: **Federal:** Endangered
State: Threatened
CNPS List:
Other Lists:

CNDDB Element Ranks: **Global:** G4T2T3
State: S2S3

General Habitat:
ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro Habitat:
NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Last Date Observed: 1971-XX-XX
Occurrence Type: Natural/Native occurrence
Last Survey Date: 1971-XX-XX
Occurrence Rank: Unknown
Owner/Manager: UNKNOWN
Trend: Unknown
Presence: Presumed Extant

Location:
JUST E OF HANFORD, JUST SW OF INTERSECTION OF HWY 198 AND 9 1/4 AVE. NORTH OF HANFORD MUNICIPAL AIRPORT.

Detailed Location:

Ecological:

Threats:

General:
SIGHTING, ROAD KILL OR DEN PRIOR TO 1972.

PLSS: T18S, R22E, Sec. 31 (M)
Accuracy: 2/5 mile
Area (acres): 0
UTM: Zone-11 N4023304 E264304
Latitude/Longitude: 36.32597 / -119.62570
Elevation (feet): 250

County Summary:
Kings

Quad Summary:
Remnoy (3611935), Hanford (3611936)

Sources:
MOR75M0001 MORRELL, S.H. MAPS (6) SHOWING SAN JOAQUIN KIT FOX DISTRIBUTION AND ABUNDANCE IN 1975. 1975-XX-XX

Occurrence Report

California Department of Fish and Game

California Natural Diversity Database

Map Index Number: 69175
EO Index: 69953
Key Quad: Hanford (3611936)
Element Code: AMAJA03041
Occurrence Number: 1101
Occurrence Last Updated: 2007-05-07

Scientific Name: *Vulpes macrotis mutica*
Common Name: San Joaquin kit fox

Listing Status: **Federal:** Endangered
State: Threatened
CNPS List:
Other Lists:

CNDDB Element Ranks: **Global:** G4T2T3
State: S2S3

General Habitat:

ANNUAL GRASSLANDS OR GRASSY OPEN STAGES WITH SCATTERED SHRUBBY VEGETATION.

Micro Habitat:

NEED LOOSE-TEXTURED SANDY SOILS FOR BURROWING, AND SUITABLE PREY BASE.

Last Date Observed: 2006-06-12
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2006-06-12
Occurrence Rank: Unknown
Owner/Manager: PVT
Trend: Unknown
Presence: Presumed Extant

Location:

NW OF HANFORD, EAST OF KINGS ROAD, NORTH OF GRANGEVILLE ROAD AND WEST OF RAILROAD TRACKS.

Detailed Location:

FOX OBSERVED IN AN UNDEVELOPED 15.26 ACRE PARCEL.

Ecological:

Threats:

General:

1 INDIVIDUAL OBSERVED ON 12 JUN 2006.

PLSS: T18S, R21E, Sec. 23 (M)
Accuracy: nonspecific area
Area (acres): 35
UTM: Zone-11 N4025460 E260863
Latitude/Longitude: 36.34453 / -119.66465
Elevation (feet): 250

County Summary:

Kings

Quad Summary:

Hanford (3611936)

Sources:

SHE06F0001 SHERMAN, MARK FIELD SURVEY FORM FOR VULPES MACROTIS MUTICA 2006-06-12

SLO07U0001 BRIDEN, LAURIE E-MAIL REGARDING LOCATION OF SIGHTING OF SHE06F0001 2007-05-04

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

FRESNO KERN KINGS MADERA TULARE

Southern San Joaquin Valley Information Center
California State University, Bakersfield
9001 Stockdale Highway
31 MW
Bakersfield, California 93311-1022
(661) 654-2289 FAX (661) 654-2415
E-mail: ssjvic@csub.edu

TO: Tarisai Garande
Environmental Resources Management
1277 Treat Blvd., Suite 500
Walnut Creek, CA 94597

(RS# 10-250)

DATE: June 14, 2010

RE: PN-0105673: New Superior Courthouse

County: Kings

Map(s): Hanford 7.5'

The Southern San Joaquin Valley Information Center is under contract to the State Office of Historic Preservation and is responsible for the local management of the California Historical Resources Inventories. The Center is funded by research fees and a grant from the State Office of Historic Preservation. The Information Center does not conduct fieldwork and is not affiliated with any archaeological consultants who conduct fieldwork.

CULTURAL RESOURCES RECORDS SEARCH

The following are the results of a search of the cultural resources files at the Southern San Joaquin Valley Information Center. These files include known and recorded archaeological and historic sites, inventory and excavation reports filed with this office, and properties listed on the National Register of Historic Places, Historic Property Data File (5/18/10), the California State Historical Landmarks, the California Register, the California Inventory of Historic Resources, and the California Points of Historical Interest.

PRIOR CULTURAL RESOURCE INVENTORIES WITHIN THE PROJECT AREAS AND THE ONE-HALF MILE RADII

There has been one (1) previous cultural resources study conducted within the project areas, KI-55. There have been nine (9) additional studies conducted within the one-half mile radii, KI-28, 42, 79, 100, 109, 110, 111, 164, and 165.

(RS # 10-250)

KNOWN AND/OR RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREAS AND THE ONE-HALF MILE RADII

There are no recorded cultural resources within the project areas. There are seven (7) recorded resources within the one-half mile radii, P-16-122, 205, 240, 241, 242, 243, and 244.

There are no recorded cultural resources within the study area that are listed in the National Register of Historic Places, the California Register, California Inventory of Historic Resources, California Points of Historical Interest, or the California State Historic Landmarks.

COMMENTS/RECOMMENDATIONS

We understand this project will consist of the development of a new Superior Courthouse for the City of Hanford. The study that was conducted in the project areas is more than twenty years old. The Information Center routinely recommends a new study be conducted if the previous one is at least 5 to 7 years old. As such, we recommend a qualified professional archaeologist conduct a field survey of both parcels, using current methods and standards, to determine if cultural resources are present. A referral list is available at www.chrisinfo.org Please contact us if you have any questions or need additional information.

By: Michael A. Tibbet
for

Brian E. Hemphill, Ph. D.
Coordinator

Date: June 14, 2010

Fee: $225.00/hr. (Priority Service)

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

GANDA

Garcia and Associates
104 South C Street, Ste. G
Lompoc, CA 93436
Phone: (805) 740-1946
Fax: (805) 740-2046

To: **Jill Quillin, Program Director, ERM**

From: **Carole Denardo, M.A., RPA, Cultural Resources Manager**

Date: **September 28, 2010**

RE: ***Interim Archaeological Fieldwork Summary Report in Support of an IS/MND for the New Hanford Superior Courthouse Project.***

ERM contracted Garcia and Associates (GANDA) to perform an archaeological survey for a new Superior Courthouse in Hanford, Kings County, California. The cultural resources study was completed pursuant to the California Environmental Quality Act (CEQA). CEQA requires a review of projects sponsored by public agencies to determine the effects of the project on historical resources. According to CEQA, "historical resources" comprise buildings, structures, objects, districts, or sites that may possess prehistoric or historical archaeological, architectural, cultural, or scientific importance.

GANDA reviewed an archaeological records search completed by the Southern San Joaquin Valley Information Center (SSJVIC) for this project on June 14, 2010. The results indicate ten (10) prior studies within a 0.5-mile radius; one of the studies encompassed the study area. Although no cultural resources were previously recorded in the study area, seven (7) resources have been recorded within the 0.5-mile search radius. There are no cultural resources within the study area that are listed in the National Register of Historic Places, the California Register, California Inventory of Historic Resources, California Points of Historical Interest, or the California State Historic Landmarks.

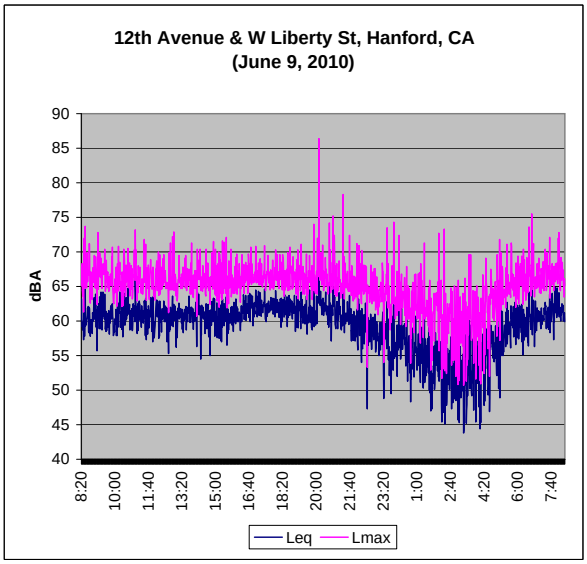
On September 27, 2010, Garcia and Associates (GANDA) archaeologist Daniel Grijalva conducted a pedestrian survey to identify prehistoric and/or historic archaeological sites in the study area. The entire 7.0-acre parcel and the Kings County Drive Extension were surveyed using transect intervals of less than 10 meters.

The results of the pedestrian survey revealed no archaeological sites were observed within the study area.

This memorandum serves as an interim report. A more formalized report, suitable for submission to ERM and the SSJVIC, will follow. Please contact Carole Denardo at (805) 350-3134 with questions regarding the archaeological study.

Located on proposed site along 12th Avenue border
About 110 feet from edge of 12th Avenue

Leq total = 60.4 dBA Ldn = 64.8 CNEL= 65.4



86.4 Lmax
63.33398 Max Leq(hr)
53.27585 Min Leq(hr)
Min Leq(hr) between 4 AM and Midnight
During peak hour

Calculation of Leq(hr)

Date: 06/09/10 3481791 3050033 5719246 1100648

	Leq	Lmax	L(99.9)	CNEL adj	Ldn Adjust	CNEL ener	Ldn energy		Leq Energy	Energy-Mo	Leq(hr)
8:20:00	63.2	68.1	45.9	0	0	2089296	2089296		2089296.1	1289811	61.10526
8:21:00	60.1	65.1	46.9	0	0	1023293	1023293		1023293	1270906	61.04113
8:22:00	59.2	68.3	46.9	0	0	831764	831764		831763.77	1266206	61.02504
8:23:00	59.7	64.4	47.9	0	0	933254	933254		933254.3	1271925	61.04461
8:24:00	58.7	63.6	48.9	0	0	741310	741310		741310.24	1279377	61.06999
8:25:00	59.9	65.1	48.9	0	0	977237	977237		977237.22	1310860	61.17556
8:26:00	57.3	61.3	46.9	0	0	537032	537032		537031.8	1314154	61.18646
8:27:00	61.9	69.2	49.9	0	0	1548817	1548817		1548816.6	1334841	61.2543
8:28:00	63.7	72	51.9	0	0	2344229	2344229		2344228.8	1341525	61.27599
8:29:00	57.8	65.5	43.9	0	0	602560	602560		602559.59	1320313	61.20677
8:30:00	60.2	64.8	49.9	0	0	1047129	1047129		1047128.5	1351182	61.30714
8:31:00	64.6	73.7	55.9	0	0	2884032	2884032		2884031.5	1353312	61.31398
8:32:00	59.3	64.8	51.9	0	0	851138	851138		851138.04	1317888	61.19878
8:33:00	60.3	65.6	50.9	0	0	1071519	1071519		1071519.3	1317888	61.19878
8:34:00	59.5	65.2	47.9	0	0	891251	891251		891250.94	1311828	61.17877
8:35:00	60.2	64.8	44.9	0	0	1047129	1047129		1047128.5	1319980	61.20567
8:36:00	60.4	66.6	48.9	0	0	1096478	1096478		1096478.2	1314602	61.18794
8:37:00	60.8	69.9	49.9	0	0	1202264	1202264		1202264.4	1315909	61.19226
8:38:00	61.9	65.7	53.9	0	0	1548817	1548817		1548816.6	1314572	61.18784
8:39:00	61.3	67.2	49.9	0	0	1348963	1348963		1348962.9	1310229	61.17347
8:40:00	62.1	66.8	53.9	0	0	1621810	1621810		1621810.1	1301293	61.14375
8:41:00	58.5	67.1	46.9	0	0	707946	707946		707945.78	1290551	61.10775
8:42:00	58.3	66.7	46.9	0	0	676083	676083		676082.98	1302294	61.14709
8:43:00	62	71.2	47.9	0	0	1584893	1584893		1584893.2	1312997	61.18264
8:44:00	61.8	71.1	45.9	0	0	1513561	1513561		1513561.2	1297343	61.13055
8:45:00	58.8	63.6	48.9	0	0	758578	758578		758577.58	1293099	61.11632
8:46:00	57.8	62.6	47.9	0	0	602560	602560		602559.59	1296010	61.12608
8:47:00	59.8	65.1	48.9	0	0	954993	954993		954992.59	1309510	61.17109
8:48:00	58.8	67.1	47.9	0	0	758578	758578		758577.58	1321253	61.20986
8:49:00	60.2	64.2	43.9	0	0	1047129	1047129		1047128.5	1331616	61.24379
8:50:00	59.8	65.1	45.9	0	0	954993	954993		954992.59	1332023	61.24512
8:51:00	60.2	64.9	49.9	0	0	1047129	1047129		1047128.5	1334381	61.2528
8:52:00	58.2	63.1	45.9	0	0	660693	660693		660693.45	1345892	61.2901
8:53:00	61.2	66.3	48.9	0	0	1318257	1318257		1318256.7	1364519	61.34979
8:54:00	60.7	67.7	46.9	0	0	1174898	1174898		1174897.6	1361683	61.34076
8:55:00	60	65.6	48.9	0	0	1000000	1000000		1000000	1359961	61.33526
8:56:00	61.9	67.1	50.9	0	0	1548817	1548817		1548816.6	1353570	61.31481
8:57:00	63	67.1	50.9	0	0	1995262	1995262		1995262.3	1338518	61.26624
8:58:00	63.4	69.5	53.9	0	0	2187762	2187762		2187761.6	1319126	61.20286
8:59:00	62	67.3	52.9	0	0	1584893	1584893		1584893.2	1294194	61.11999
9:00:00	61.2	65.1	53.9	0	0	1318257	1318257		1318256.7	1285638	61.09119
9:01:00	60.2	64.8	52.9	0	0	1047129	1047129		1047128.5	1280722	61.07455
9:02:00	63.9	69.3	58.9	0	0	2454709	2454709		2454708.9	1278470	61.0669
9:03:00	62.3	66.1	53.9	0	0	1698244	1698244		1698243.7	1257596	60.99541
9:04:00	59.1	64.7	47.9	0	0	812831	812831		812830.52	1253943	60.98278
9:05:00	61.6	65.1	53.9	0	0	1445440	1445440		1445439.8	1250673	60.97144
9:06:00	55.7	62.4	43.9	0	0	371535	371535		371535.23	1240129	60.93467
9:07:00	61.5	67.3	47.9	0	0	1412538	1412538		1412537.5	1244214	60.94895
9:08:00	61.7	68.4	52.9	0	0	1479108	1479108		1479108.4	1251706	60.97502
9:09:00	62.1	72.8	48.9	0	0	1621810	1621810		1621810.1	1240601	60.93632
9:10:00	60.1	64.6	51.9	0	0	1023293	1023293		1023293	1240601	60.93632
9:11:00	62.5	68.3	53.9	0	0	1778279	1778279		1778279.4	1253185	60.98015
9:12:00	61.3	66.4	49.9	0	0	1348963	1348963		1348962.9	1245017	60.95175

9:13:00	58.9	66.7	49.9	0	0	776247	776247	776247.12	1247761	60.96131
9:14:00	63.5	69.9	55.9	0	0	2238721	2238721	2238721.1	1259475	61.0019
9:15:00	63.1	69.6	48.9	0	0	2041738	2041738	2041737.9	1266001	61.02434
9:16:00	58.9	66.6	47.9	0	0	776247	776247	776247.12	1253943	60.98278
9:17:00	62.6	66.3	51.9	0	0	1819701	1819701	1819700.9	1254553	60.98489
9:18:00	64.2	69.1	55.9	0	0	2630268	2630268	2630268	1245695	60.95412
9:19:00	59.9	66.3	48.9	0	0	977237	977237	977237.22	1220557	60.86558
9:20:00	59.8	64.8	49.9	0	0	954993	954993	954992.59	1227277	60.88942
9:21:00	58.7	64.7	47.9	0	0	741310	741310	741310.24	1224003	60.87782
9:22:00	60.7	67.3	48.9	0	0	1174898	1174898	1174897.6	1241976	60.94113
9:23:00	61.4	66.7	49.9	0	0	1380384	1380384	1380384.3	1239449	60.93229
9:24:00	64.2	68	55.9	0	0	2630268	2630268	2630268	1226257	60.88582
9:25:00	60.7	68.3	49.9	0	0	1174898	1174898	1174897.6	1201120	60.79586
9:26:00	62.5	66.8	54.9	0	0	1778279	1778279	1778279.4	1196738	60.77999
9:27:00	62.9	67.1	58.9	0	0	1949845	1949845	1949844.6	1196738	60.77999
9:28:00	60.3	66.8	49.9	0	0	1071519	1071519	1071519.3	1206106	60.81385
9:29:00	63.9	70.4	55.9	0	0	2454709	2454709	2454708.9	1209229	60.82509
9:30:00	60.7	65.6	50.9	0	0	1174898	1174898	1174897.6	1182833	60.72924
9:31:00	58.8	64.3	50.9	0	0	758578	758578	758577.58	1185223	60.738
9:32:00	59.3	64.6	50.9	0	0	851138	851138	851138.04	1188867	60.75133
9:33:00	58.5	64.8	49.9	0	0	707946	707946	707945.78	1193817	60.76938
9:34:00	61.4	68.8	52.9	0	0	1380384	1380384	1380384.3	1218481	60.85819
9:35:00	58.6	66.8	46.9	0	0	724436	724436	724435.96	1213333	60.8398
9:36:00	60.7	65.6	50.9	0	0	1174898	1174898	1174897.6	1222241	60.87157
9:37:00	60.5	66.7	51.9	0	0	1122018	1122018	1122018.5	1222697	60.87319
9:38:00	61.1	67.1	52.9	0	0	1288250	1288250	1288249.6	1225468	60.88302
9:39:00	59.1	64.8	47.9	0	0	812831	812831	812830.52	1253184	60.98015
9:40:00	59.9	66	48.9	0	0	977237	977237	977237.22	1262119	61.011
9:41:00	61.5	64.3	55.9	0	0	1412538	1412538	1412537.5	1267303	61.0288
9:42:00	61.2	66.4	53.9	0	0	1318257	1318257	1318256.7	1264743	61.02002
9:43:00	58.1	64.4	48.9	0	0	645654	645654	645654.23	1266862	61.02729
9:44:00	61	66.2	47.9	0	0	1258925	1258925	1258925.4	1285065	61.08925
9:45:00	59.7	65.9	46.9	0	0	933254	933254	933254.3	1276438	61.06
9:46:00	61.5	66.8	52.9	0	0	1412538	1412538	1412537.5	1284426	61.08709
9:47:00	62.2	65.9	54.9	0	0	1659587	1659587	1659586.9	1277939	61.0651
9:48:00	61.4	65.1	51.9	0	0	1380384	1380384	1380384.3	1266945	61.02758
9:49:00	60.3	65.2	48.9	0	0	1071519	1071519	1071519.3	1267481	61.02942
9:50:00	60.4	69.3	47.9	0	0	1096478	1096478	1096478.2	1262560	61.01252
9:51:00	62.4	66.3	48.9	0	0	1737801	1737801	1737800.8	1269511	61.03637
9:52:00	62.5	70.7	51.9	0	0	1778279	1778279	1778279.4	1252622	60.9782
9:53:00	60.6	64.7	52.9	0	0	1148154	1148154	1148153.6	1235339	60.91786
9:54:00	60.3	64	46.9	0	0	1071519	1071519	1071519.3	1232870	60.90917
9:55:00	57.9	62.7	47.9	0	0	616595	616595	616595	1244649	60.95047
9:56:00	58.1	62.5	50.9	0	0	645654	645654	645654.23	1259025	61.00034
9:57:00	59.2	64.5	47.9	0	0	831764	831764	831763.77	1275294	61.0561
9:58:00	58.4	64.8	48.9	0	0	691831	691831	691830.97	1281013	61.07553
9:59:00	60.3	64.1	51.9	0	0	1071519	1071519	1071519.3	1297142	61.12988
10:00:00	60.1	66.1	47.9	0	0	1023293	1023293	1023293	1295571	61.12461
10:01:00	59.6	65.1	46.9	0	0	912011	912011	912010.84	1343357	61.28191
10:02:00	60.8	64.8	51.9	0	0	1202264	1202264	1202264.4	1370996	61.37036
10:03:00	61.7	67.8	46.9	0	0	1479108	1479108	1479108.4	1378618	61.39444
10:04:00	57.9	65.1	44.9	0	0	616595	616595	616595	1380997	61.40193
10:05:00	59.1	62.1	50.9	0	0	812831	812831	812830.52	1390302	61.43109
10:06:00	57.9	62.7	49.9	0	0	616595	616595	616595	1388554	61.42563
10:07:00	62.7	68.3	53.9	0	0	1862087	1862087	1862087.1	1389289	61.42793
10:08:00	59.1	64.3	47.9	0	0	812831	812831	812830.52	1387217	61.42144
10:09:00	62.1	66.4	47.9	0	0	1621810	1621810	1621810.1	1385744	61.41683
10:10:00	62.5	70.8	49.9	0	0	1778279	1778279	1778279.4	1389042	61.42715
10:11:00	61.1	65.2	51.9	0	0	1288250	1288250	1288249.6	1387064	61.42096
10:12:00	61.8	68	50.9	0	0	1513561	1513561	1513561.2	1382648	61.40712
10:13:00	61.7	66.7	52.9	0	0	1479108	1479108	1479108.4	1389919	61.4299
10:14:00	64.2	68.5	58.9	0	0	2630268	2630268	2630268	1394231	61.44335
10:15:00	61.2	65.9	51.9	0	0	1318257	1318257	1318256.7	1379357	61.39677
10:16:00	59.1	64.4	49.9	0	0	812831	812831	812830.52	1376521	61.38783
10:17:00	61.1	65.7	52.9	0	0	1288250	1288250	1288249.6	1386517	61.41925
10:18:00	60.5	65.5	50.9	0	0	1122018	1122018	1122018.5	1381712	61.40418
10:19:00	61.4	64	57.9	0	0	1380384	1380384	1380384.3	1376559	61.38795
10:20:00	58.8	62.1	46.9	0	0	758578	758578	758577.58	1381213	61.40261
10:21:00	62.6	67.1	49.9	0	0	1819701	1819701	1819700.9	1388607	61.42579
10:22:00	60.1	65.9	48.9	0	0	1023293	1023293	1023293	1374946	61.38286
10:23:00	57.7	62.2	49.9	0	0	588844	588844	588843.66	1381433	61.4033
10:24:00	60.5	65	48.9	0	0	1122018	1122018	1122018.5	1393590	61.44135
10:25:00	59.6	63.1	55.9	0	0	912011	912011	912010.84	1390444	61.43154
10:26:00	62.5	70.4	51.9	0	0	1778279	1778279	1778279.4	1396715	61.45108
10:27:00	64	69.7	52.9	0	0	2511886	2511886	2511886.4	1385351	61.4156
10:28:00	61	68.4	51.9	0	0	1258925	1258925	1258925.4	1375984	61.38613
10:29:00	59.4	64.4	48.9	0	0	870964	870964	870963.59	1383965	61.41125
10:30:00	61.2	65.7	50.9	0	0	1318257	1318257	1318256.7	1402703	61.46966
10:31:00	59.9	63.6	49.9	0	0	977237	977237	977237.22	1391009	61.4333
10:32:00	60.6	64.9	51.9	0	0	1148154	1148154	1148153.6	1410355	61.49328
10:33:00	63.4	68.1	54.9	0	0	2187762	2187762	2187761.6	1411723	61.4975
10:34:00	60.3	65.7	54.9	0	0	1071519	1071519	1071519.3	1384211	61.41202
10:35:00	61	65.7	53.9	0	0	1258925	1258925	1258925.4	1391004	61.43328
10:36:00	60.8	65.8	53.9	0	0	1202264	1202264	1202264.4	1390060	61.43033
10:37:00	61.1	66.3	53.9	0	0	1288250	1288250	1288249.6	1389604	61.42891
10:38:00	64.7	70.5	57.9	0	0	2951209	2951209	2951209.2	1378894	61.39531
10:39:00	61.3	64.9	55.9	0	0	1348963	1348963	1348962.9	1348407	61.29821
10:40:00	61.1	66	50.9	0	0	1288250	1288250	1288249.6	1353584	61.31485
10:41:00	61	65.6	52.9	0	0	1258925	1258925	1258925.4	1357339	61.32688

10:42:00	61.6	64.8	55.9	0	0	1445440	1445440	1445439.8	1349596	61.30204
10:43:00	62.4	68.4	52.9	0	0	1737801	1737801	1737800.8	1341793	61.27685
10:44:00	58.7	63.6	50.9	0	0	741310	741310	741310.24	1333334	61.24939
10:45:00	61.5	66.3	53.9	0	0	1412538	1412538	1412537.5	1345069	61.28745
10:46:00	60.1	66.8	46.9	0	0	1023293	1023293	1023293	1340663	61.2732
10:47:00	60	64.6	47.9	0	0	1000000	1000000	1000000	1359241	61.33296
10:48:00	61.5	68	54.9	0	0	1412538	1412538	1412537.5	1379037	61.39576
10:49:00	58.9	65.2	48.9	0	0	776247	776247	776247.12	1387252	61.42155
10:50:00	61.8	67.6	54.9	0	0	1513561	1513561	1513561.2	1386114	61.41799
10:51:00	58.6	63.2	45.9	0	0	724436	724436	724435.96	1376088	61.38646
10:52:00	58.7	63.3	45.9	0	0	741310	741310	741310.24	1384996	61.41449
10:53:00	60	64.4	51.9	0	0	1000000	1000000	1000000	1380994	61.40192
10:54:00	62.5	66.7	55.9	0	0	1778279	1778279	1778279.4	1401640	61.46636
10:55:00	61.7	66.4	51.9	0	0	1479108	1479108	1479108.4	1392984	61.43946
10:56:00	62.1	66.7	52.9	0	0	1621810	1621810	1621810.1	1377704	61.39156
10:57:00	60.7	70.3	48.9	0	0	1174898	1174898	1174897.6	1366961	61.35756
10:58:00	62.2	67.2	55.9	0	0	1659587	1659587	1659586.9	1357194	61.32642
10:59:00	59.9	65.9	49.9	0	0	977237	977237	977237.22	1342177	61.2781
11:00:00	65.9	73.2	55.9	0	0	3890451	3890451	3890451.4	1340075	61.27129
11:01:00	64.1	68.3	56.9	0	0	2570396	2570396	2570395.8	1293093	61.1163
11:02:00	62.2	70.3	52.9	0	0	1659587	1659587	1659586.9	1274905	61.05478
11:03:00	62.1	67.1	53.9	0	0	1621810	1621810	1621810.1	1276883	61.06151
11:04:00	60.7	64.9	53.9	0	0	1174898	1174898	1174897.6	1283107	61.08263
11:05:00	58.5	63.9	46.9	0	0	707946	707946	707945.78	1296023	61.12613
11:06:00	58.2	62.9	49.9	0	0	660693	660693	660693.45	1317478	61.19744
11:07:00	62.4	66.4	56.9	0	0	1737801	1737801	1737800.8	1325603	61.22413
11:08:00	58.6	64.1	49.9	0	0	724436	724436	724435.96	1329137	61.2357
11:09:00	62.6	68	54.9	0	0	1819701	1819701	1819700.9	1342876	61.28036
11:10:00	62.2	65.6	56.9	0	0	1659587	1659587	1659586.9	1340852	61.27381
11:11:00	60.1	65.4	50.9	0	0	1023293	1023293	1023293	1322565	61.21417
11:12:00	62.9	66.8	53.9	0	0	1949845	1949845	1949844.6	1321426	61.21043
11:13:00	62.4	66.4	55.9	0	0	1737801	1737801	1737800.8	1298972	61.136
11:14:00	62.4	67.8	53.9	0	0	1737801	1737801	1737800.8	1302506	61.1478
11:15:00	60.6	65.3	50.9	0	0	1148154	1148154	1148153.6	1289459	61.10408
11:16:00	61.5	65.1	50.9	0	0	1412538	1412538	1412537.5	1290361	61.10711
11:17:00	60	64.3	52.9	0	0	1000000	1000000	1000000	1292045	61.11277
11:18:00	59.1	64	49.9	0	0	812831	812831	812830.52	1297861	61.13228
11:19:00	62.2	65.1	55.9	0	0	1659587	1659587	1659586.9	1295844	61.12553
11:20:00	60.8	66.1	52.9	0	0	1202264	1202264	1202264.4	1288689	61.10148
11:21:00	60	65.5	48.9	0	0	1000000	1000000	1000000	1287351	61.09697
11:22:00	61.5	63.9	55.9	0	0	1412538	1412538	1412537.5	1288543	61.10099
11:23:00	61.2	65.2	53.9	0	0	1318257	1318257	1318256.7	1289092	61.10284
11:24:00	59.7	64.8	51.9	0	0	933254	933254	933254.3	1292347	61.11379
11:25:00	61.1	66.3	49.9	0	0	1288250	1288250	1288249.6	1295493	61.12435
11:26:00	60.4	67.4	49.9	0	0	1096478	1096478	1096478.2	1306519	61.16116
11:27:00	62.9	71.8	52.9	0	0	1949845	1949845	1949844.6	1311787	61.17863
11:28:00	62.4	65.6	57.9	0	0	1737801	1737801	1737800.8	1295577	61.12463
11:29:00	63	66.3	58.9	0	0	1995262	1995262	1995262.3	1294273	61.12026
11:30:00	57.9	68.7	44.9	0	0	616595	616595	616595	1278878	61.06829
11:31:00	63.3	71.1	54.9	0	0	2137962	2137962	2137962.1	1295631	61.12481
11:32:00	60.9	65.9	50.9	0	0	1230269	1230269	1230268.8	1276665	61.06077
11:33:00	57.3	63	47.9	0	0	537032	537032	537031.8	1277631	61.06406
11:34:00	61.7	67.7	52.9	0	0	1479108	1479108	1479108.4	1284597	61.08767
11:35:00	60.8	67.2	52.9	0	0	1202264	1202264	1202264.4	1285759	61.0916
11:36:00	60.7	67.7	45.9	0	0	1174898	1174898	1174897.6	1274075	61.05195
11:37:00	58.1	66	44.9	0	0	645654	645654	645654.23	1271945	61.04468
11:38:00	60.5	64.7	53.9	0	0	1122018	1122018	1122018.5	1283667	61.08452
11:39:00	62.2	68.1	53.9	0	0	1659587	1659587	1659586.9	1279483	61.07034
11:40:00	61.8	66.4	55.9	0	0	1513561	1513561	1513561.2	1257470	60.99498
11:41:00	59	63.9	47.9	0	0	794328	794328	794328.23	1250103	60.96946
11:42:00	59.9	63.1	52.9	0	0	977237	977237	977237.22	1258835	60.99969
11:43:00	60.9	66.2	49.9	0	0	1230269	1230269	1230268.8	1254347	60.98418
11:44:00	61.6	67.5	51.9	0	0	1445440	1445440	1445439.8	1250897	60.97222
11:45:00	60.6	67.8	49.9	0	0	1148154	1148154	1148153.6	1239450	60.93229
11:46:00	63.3	68.9	51.9	0	0	2137962	2137962	2137962.1	1246729	60.95772
11:47:00	63.4	67.6	54.9	0	0	2187762	2187762	2187761.6	1225282	60.88236
11:48:00	62.8	66.8	55.9	0	0	1905461	1905461	1905460.7	1209323	60.82542
11:49:00	58.5	65.1	46.9	0	0	707946	707946	707945.78	1194621	60.7723
11:50:00	59.6	64.6	47.9	0	0	912011	912011	912010.84	1199876	60.79136
11:51:00	61	66.1	49.9	0	0	1258925	1258925	1258925.4	1214314	60.84331
11:52:00	57	66.4	46.9	0	0	501187	501187	501187.23	1231513	60.90439
11:53:00	63.5	67.8	57.9	0	0	2238721	2238721	2238721.1	1247251	60.95954
11:54:00	61	67.3	48.9	0	0	1258925	1258925	1258925.4	1223801	60.87711
11:55:00	57.5	63.6	47.9	0	0	562341	562341	562341.33	1229234	60.89635
11:56:00	59.9	63.5	50.9	0	0	977237	977237	977237.22	1248825	60.96502
11:57:00	57.7	63.9	44.9	0	0	588844	588844	588843.66	1249593	60.96769
11:58:00	58.8	64.8	46.9	0	0	758578	758578	758577.58	1258479	60.99846
11:59:00	59.3	63	48.9	0	0	851138	851138	851138.04	1273496	61.04998
12:00:00	60.3	64.7	49.9	0	0	1071519	1071519	1071519.3	1276365	61.05975
12:01:00	61.7	67.5	50.9	0	0	1479108	1479108	1479108.4	1279011	61.06874
12:02:00	62.5	67.2	52.9	0	0	1778279	1778279	1778279.4	1269913	61.03774
12:03:00	63	68.1	54.9	0	0	1995262	1995262	1995262.3	1247223	60.95944
12:04:00	62.9	68.7	54.9	0	0	1949845	1949845	1949844.6	1236975	60.92361
12:05:00	63	67.1	50.9	0	0	1995262	1995262	1995262.3	1223178	60.8749
12:06:00	60.6	64.4	52.9	0	0	1148154	1148154	1148153.6	1199514	60.79005
12:07:00	62.9	67.9	57.9	0	0	1949845	1949845	1949844.6	1195233	60.77452
12:08:00	61.9	67.1	54.9	0	0	1548817	1548817	1548816.6	1182773	60.72901
12:09:00	62.3	70	51.9	0	0	1698244	1698244	1698243.7	1182773	60.72901
12:10:00	57.5	63.7	47.9	0	0	562341	562341	562341.33	1175940	60.70385

12:11:00	59.8	66.4	48.9	0	0	954993	954993	954992.59	1196896	60.78056
12:12:00	57.8	65.9	46.9	0	0	602560	602560	602559.59	1198838	60.7876
12:13:00	62.9	69.6	52.9	0	0	1949845	1949845	1949844.6	1208377	60.82202
12:14:00	59.8	63.9	50.9	0	0	954993	954993	954992.59	1197350	60.78221
12:15:00	60.8	64.4	49.9	0	0	1202264	1202264	1202264.4	1200134	60.7923
12:16:00	61.8	65.7	52.9	0	0	1513561	1513561	1513561.2	1205322	60.81103
12:17:00	61.3	67.8	47.9	0	0	1348963	1348963	1348962.9	1202067	60.79929
12:18:00	58.4	64.6	46.9	0	0	691831	691831	691830.97	1200089	60.79213
12:19:00	60.9	65.9	53.9	0	0	1230269	1230269	1230268.8	1204113	60.80667
12:20:00	60.5	64.7	46.9	0	0	1122018	1122018	1122018.5	1208260	60.8216
12:21:00	60.3	67.6	49.9	0	0	1071519	1071519	1071519.3	1202203	60.79978
12:22:00	61.6	69	51.9	0	0	1445440	1445440	1445439.8	1206315	60.81461
12:23:00	61.8	67.6	49.9	0	0	1513561	1513561	1513561.2	1197779	60.78377
12:24:00	60.5	65.2	48.9	0	0	1122018	1122018	1122018.5	1183821	60.73286
12:25:00	62.9	69.6	52.9	0	0	1949845	1949845	1949844.6	1184702	60.73609
12:26:00	61.5	65.9	45.9	0	0	1412538	1412538	1412537.5	1169259	60.67911
12:27:00	59.9	65.6	48.9	0	0	977237	977237	977237.22	1167688	60.67327
12:28:00	62.2	66	55.9	0	0	1659587	1659587	1659586.9	1176053	60.70427
12:29:00	60.3	67.3	51.9	0	0	1071519	1071519	1071519.3	1166251	60.66792
12:30:00	62.1	66.3	51.9	0	0	1621810	1621810	1621810.1	1169375	60.67954
12:31:00	60	64.7	52.9	0	0	1000000	1000000	1000000	1165887	60.66656
12:32:00	61.1	65.2	48.9	0	0	1288250	1288250	1288249.6	1176251	60.705
12:33:00	59.8	64.7	49.9	0	0	954993	954993	954992.59	1167135	60.67121
12:34:00	61.9	65.6	50.9	0	0	1548817	1548817	1548816.6	1170800	60.68483
12:35:00	57	65.5	48.9	0	0	501187	501187	501187.23	1166957	60.67055
12:36:00	60.2	65.5	49.9	0	0	1047129	1047129	1047128.5	1185019	60.73725
12:37:00	61.3	64.8	51.9	0	0	1348963	1348963	1348962.9	1183854	60.73298
12:38:00	59.4	64.8	46.9	0	0	870964	870964	870963.59	1185462	60.73888
12:39:00	55.3	61.2	43.9	0	0	338844	338844	338844.16	1195598	60.77585
12:40:00	60.3	65.1	46.9	0	0	1071519	1071519	1071519.3	1213493	60.84037
12:41:00	61.2	69.9	50.9	0	0	1318257	1318257	1318256.7	1233815	60.9125
12:42:00	58.5	64.6	47.9	0	0	707946	707946	707945.78	1233315	60.91074
12:43:00	60.1	66.9	48.9	0	0	1023293	1023293	1023293	1243999	60.9482
12:44:00	58.8	64.5	49.9	0	0	758578	758578	758577.58	1242860	60.94422
12:45:00	62	71.3	49.9	0	0	1584893	1584893	1584893.2	1247272	60.95961
12:46:00	59.3	64.9	51.9	0	0	851138	851138	851138.04	1246671	60.95752
12:47:00	60.9	66.3	49.9	0	0	1230269	1230269	1230268.8	1258900	60.99991
12:48:00	60.1	65.9	46.9	0	0	1023293	1023293	1023293	1259867	61.00325
12:49:00	60.1	64.5	52.9	0	0	1023293	1023293	1023293	1269227	61.03539
12:50:00	62.5	66.4	50.9	0	0	1778279	1778279	1778279.4	1273643	61.05048
12:51:00	63.6	72.2	52.9	0	0	2290868	2290868	2290867.7	1259921	61.00343
12:52:00	61.6	69.6	56.9	0	0	1445440	1445440	1445439.8	1246966	60.95855
12:53:00	59.2	64.8	46.9	0	0	831764	831764	831763.77	1243380	60.94604
12:54:00	62	66	54.9	0	0	1584893	1584893	1584893.2	1242160	60.94178
12:55:00	62.4	72.9	51.9	0	0	1737801	1737801	1737800.8	1234446	60.91472
12:56:00	60.1	64.4	52.9	0	0	1023293	1023293	1023293	1227453	60.89005
12:57:00	60.5	65.6	49.9	0	0	1122018	1122018	1122018.5	1227065	60.88868
12:58:00	62.2	66.8	50.9	0	0	1659587	1659587	1659586.9	1225031	60.88147
12:59:00	60.1	66.4	46.9	0	0	1023293	1023293	1023293	1214824	60.84513
13:00:00	60.9	66.4	46.9	0	0	1230269	1230269	1230268.8	1215627	60.848
13:01:00	59.7	65.2	50.9	0	0	933254	933254	933254.3	1226158	60.88546
13:02:00	56.2	63.6	46.9	0	0	416869	416869	416869.38	1228056	60.89218
13:03:00	61.4	65.4	49.9	0	0	1380384	1380384	1380384.3	1236662	60.92251
13:04:00	60.5	64.3	47.9	0	0	1122018	1122018	1122018.5	1220765	60.86632
13:05:00	57.6	62.9	45.9	0	0	575440	575440	575439.94	1220765	60.86632
13:06:00	59.5	63.5	50.9	0	0	891251	891251	891250.94	1255012	60.98648
13:07:00	60.8	65.2	48.9	0	0	1202264	1202264	1202264.4	1267188	61.02841
13:08:00	61.9	66	53.9	0	0	1548817	1548817	1548816.6	1272377	61.04616
13:09:00	61.1	66	49.9	0	0	1288250	1288250	1288249.6	1274867	61.05465
13:10:00	62.6	69.5	49.9	0	0	1819701	1819701	1819700.9	1294308	61.12038
13:11:00	60.3	68.9	45.9	0	0	1071519	1071519	1071519.3	1284484	61.08729
13:12:00	60.7	65.5	49.9	0	0	1174898	1174898	1174897.6	1293656	61.11819
13:13:00	61.1	66	49.9	0	0	1288250	1288250	1288249.6	1298726	61.13518
13:14:00	60.5	65.8	51.9	0	0	1122018	1122018	1122018.5	1304915	61.15582
13:15:00	61.8	66.2	53.9	0	0	1513561	1513561	1513561.2	1308186	61.16669
13:16:00	61.2	64.7	54.9	0	0	1318257	1318257	1318256.7	1287657	61.098
13:17:00	60.9	65.7	49.9	0	0	1230269	1230269	1230268.8	1279549	61.07057
13:18:00	59.7	66.8	47.9	0	0	933254	933254	933254.3	1269560	61.03653
13:19:00	61.7	65.6	47.9	0	0	1479108	1479108	1479108.4	1282310	61.07993
13:20:00	58.8	64.7	49.9	0	0	758578	758578	758577.58	1282310	61.07993
13:21:00	61.2	65.1	55.9	0	0	1318257	1318257	1318256.7	1288803	61.10186
13:22:00	59.7	67.8	49.9	0	0	933254	933254	933254.3	1293247	61.11681
13:23:00	58.3	65.1	47.9	0	0	676083	676083	676082.98	1304107	61.15313
13:24:00	60.7	66.4	48.9	0	0	1174898	1174898	1174897.6	1310698	61.17503
13:25:00	60.1	65.9	49.9	0	0	1023293	1023293	1023293	1314123	61.18636
13:26:00	61.2	67.5	55.9	0	0	1318257	1318257	1318256.7	1317572	61.19774
13:27:00	61.7	66.7	49.9	0	0	1479108	1479108	1479108.4	1314302	61.18695
13:28:00	60.3	69.1	44.9	0	0	1071519	1071519	1071519.3	1306705	61.16177
13:29:00	61	64.8	52.9	0	0	1258925	1258925	1258925.4	1299858	61.13896
13:30:00	61.5	69.5	49.9	0	0	1412538	1412538	1412537.5	1295931	61.12582
13:31:00	62.1	66.3	54.9	0	0	1621810	1621810	1621810.1	1287588	61.09777
13:32:00	58.7	65.5	45.9	0	0	741310	741310	741310.24	1290196	61.10656
13:33:00	60.7	64.4	48.9	0	0	1174898	1174898	1174897.6	1298346	61.1339
13:34:00	61.2	66.2	51.9	0	0	1318257	1318257	1318256.7	1291701	61.11162
13:35:00	62	67.6	53.9	0	0	1584893	1584893	1584893.2	1292737	61.1151
13:36:00	59.9	65.1	50.9	0	0	977237	977237	977237.22	1293982	61.11928
13:37:00	61.6	65.2	51.9	0	0	1445440	1445440	1445439.8	1302920	61.14918
13:38:00	61.7	66	53.9	0	0	1479108	1479108	1479108.4	1307793	61.16539
13:39:00	61.5	66.4	53.9	0	0	1412538	1412538	1412537.5	1296689	61.12836

13:40:00	63.6	67.5	56.9	0	0	2290868	2290868	2290867.7	1282960	61.08213
13:41:00	61.1	66.4	50.9	0	0	1288250	1288250	1288249.6	1263054	61.01422
13:42:00	61.3	65.9	47.9	0	0	1348963	1348963	1348962.9	1265125	61.02134
13:43:00	59.8	65.9	53.9	0	0	954993	954993	954992.59	1263147	61.01454
13:44:00	60.1	63.9	53.9	0	0	1023293	1023293	1023293	1252501	60.97778
13:45:00	61.9	65.3	55.9	0	0	1548817	1548817	1548816.6	1259537	61.00211
13:46:00	62	68.4	54.9	0	0	1584893	1584893	1584893.2	1256730	60.99242
13:47:00	61.1	67.1	53.9	0	0	1288250	1288250	1288249.6	1249896	60.96874
13:48:00	62	71.3	50.9	0	0	1584893	1584893	1584893.2	1242941	60.94451
13:49:00	61.1	63.9	50.9	0	0	1288250	1288250	1288249.6	1248284	60.96314
13:50:00	59.8	64.7	49.9	0	0	954993	954993	954992.59	1247796	60.96143
13:51:00	61.8	66.5	52.9	0	0	1513561	1513561	1513561.2	1255970	60.98979
13:52:00	60.9	63.5	52.9	0	0	1230269	1230269	1230268.8	1247031	60.95877
13:53:00	58.8	63.4	47.9	0	0	758578	758578	758577.58	1259781	61.00295
13:54:00	60.5	65.2	46.9	0	0	1122018	1122018	1122018.5	1282771	61.08149
13:55:00	61.2	66.7	49.9	0	0	1318257	1318257	1318256.7	1289296	61.10353
13:56:00	60	64.8	50.9	0	0	1000000	1000000	1000000	1287363	61.09701
13:57:00	60	64.8	52.9	0	0	1000000	1000000	1000000	1305518	61.15783
13:58:00	60.2	67.3	50.9	0	0	1047129	1047129	1047128.5	1298894	61.13574
13:59:00	60.3	64.7	49.9	0	0	1071519	1071519	1071519.3	1298894	61.13574
14:00:00	62.7	66.7	51.9	0	0	1862087	1862087	1862087.1	1304042	61.15291
14:01:00	60.2	67.3	50.9	0	0	1047129	1047129	1047128.5	1286870	61.09535
14:02:00	59.7	65.3	47.9	0	0	933254	933254	933254.3	1283280	61.08322
14:03:00	56.3	60.7	47.9	0	0	426580	426580	426579.52	1279525	61.07049
14:04:00	60.5	63.7	53.9	0	0	1122018	1122018	1122018.5	1302744	61.14859
14:05:00	64.2	70.4	55.9	0	0	2630268	2630268	2630268	1293634	61.11811
14:06:00	62.1	66	53.9	0	0	1621810	1621810	1621810.1	1268932	61.03438
14:07:00	61.8	67.6	55.9	0	0	1513561	1513561	1513561.2	1257819	60.99618
14:08:00	62.3	68.3	51.9	0	0	1698244	1698244	1698243.7	1250451	60.97067
14:09:00	63.9	68.8	55.9	0	0	2454709	2454709	2454708.9	1238064	60.92743
14:10:00	60.9	67.5	51.9	0	0	1230269	1230269	1230268.8	1230406	60.90049
14:11:00	62.1	66	48.9	0	0	1621810	1621810	1621810.1	1219274	60.86101
14:12:00	61.7	67	55.9	0	0	1479108	1479108	1479108.4	1221207	60.86789
14:13:00	62.2	70.4	50.9	0	0	1659587	1659587	1659586.9	1222970	60.87416
14:14:00	61.2	67.5	51.9	0	0	1318257	1318257	1318256.7	1219962	60.86346
14:15:00	54.5	64.4	41.9	0	0	281838	281838	281838.29	1218029	60.85658
14:16:00	59.2	65.2	44.9	0	0	831764	831764	831763.77	1222079	60.87099
14:17:00	58	65.2	43.9	0	0	630957	630957	630957.34	1235876	60.91975
14:18:00	62.3	65.5	53.9	0	0	1698244	1698244	1698243.7	1233713	60.91214
14:19:00	61.7	66.4	54.9	0	0	1479108	1479108	1479108.4	1237167	60.92428
14:20:00	60.6	64.3	52.9	0	0	1148154	1148154	1148153.6	1226062	60.88512
14:21:00	62	68	46.9	0	0	1584893	1584893	1584893.2	1241748	60.94033
14:22:00	62	66.7	50.9	0	0	1584893	1584893	1584893.2	1238875	60.93028
14:23:00	60.3	64.8	49.9	0	0	1071519	1071519	1071519.3	1227660	60.89078
14:24:00	61.4	66.4	52.9	0	0	1380384	1380384	1380384.3	1230784	60.90182
14:25:00	60.9	66.9	51.9	0	0	1230269	1230269	1230268.8	1221963	60.87058
14:26:00	60.5	65.9	44.9	0	0	1122018	1122018	1122018.5	1231097	60.90292
14:27:00	60.1	65.2	51.9	0	0	1023293	1023293	1023293	1233867	60.91268
14:28:00	58.2	65.7	47.9	0	0	660693	660693	660693.45	1233099	60.90998
14:29:00	60.1	63.9	45.9	0	0	1023293	1023293	1023293	1239947	60.93403
14:30:00	59.6	63.6	50.9	0	0	912011	912011	912010.84	1242028	60.94131
14:31:00	62.5	70.4	47.9	0	0	1778279	1778279	1778279.4	1245102	60.95205
14:32:00	60.9	64.7	49.9	0	0	1230269	1230269	1230268.8	1252776	60.97873
14:33:00	58.9	64.9	48.9	0	0	776247	776247	776247.12	1250546	60.971
14:34:00	61.4	66.6	51.9	0	0	1380384	1380384	1380384.3	1245054	60.95188
14:35:00	62.2	66.3	53.9	0	0	1659587	1659587	1659586.9	1251010	60.97261
14:36:00	61.8	68.4	49.9	0	0	1513561	1513561	1513561.2	1243855	60.9477
14:37:00	62.4	66.1	49.9	0	0	1737801	1737801	1737800.8	1229641	60.89778
14:38:00	59.1	66.4	48.9	0	0	812831	812831	812830.52	1225329	60.88253
14:39:00	57.7	64.4	47.9	0	0	588844	588844	588843.66	1224137	60.8783
14:40:00	60.4	65.9	51.9	0	0	1096478	1096478	1096478.2	1235305	60.91774
14:41:00	61.5	66.2	53.9	0	0	1412538	1412538	1412537.5	1238501	60.92896
14:42:00	60.9	64	49.9	0	0	1230269	1230269	1230268.8	1230876	60.90214
14:43:00	55	62.4	42.9	0	0	316228	316228	316227.77	1226288	60.88592
14:44:00	61.6	66.4	50.9	0	0	1445440	1445440	1445439.8	1236571	60.92219
14:45:00	61.4	65.1	51.9	0	0	1380384	1380384	1380384.3	1229536	60.89741
14:46:00	60.7	65.1	52.9	0	0	1174898	1174898	1174897.6	1232944	60.90943
14:47:00	59.4	65.7	43.9	0	0	870964	870964	870963.59	1230417	60.90052
14:48:00	62.8	69.9	54.9	0	0	1905461	1905461	1905460.7	1234602	60.91527
14:49:00	61	67.9	46.9	0	0	1258925	1258925	1258925.4	1229874	60.89861
14:50:00	61.6	68.5	50.9	0	0	1445440	1445440	1445439.8	1223408	60.87571
14:51:00	59.9	64.6	48.9	0	0	977237	977237	977237.22	1220788	60.8664
14:52:00	63	69.6	49.9	0	0	1995262	1995262	1995262.3	1219701	60.86253
14:53:00	63.3	71.5	49.9	0	0	2137962	2137962	2137962.1	1198246	60.78546
14:54:00	61.8	66	52.9	0	0	1513561	1513561	1513561.2	1182195	60.72689
14:55:00	60.8	65.5	47.9	0	0	1202264	1202264	1202264.4	1188004	60.74818
14:56:00	63.2	68.4	54.9	0	0	2089296	2089296	2089296.1	1184253	60.73445
14:57:00	57.8	63.9	47.9	0	0	602560	602560	602559.59	1165719	60.66594
14:58:00	60.2	64.7	48.9	0	0	1047129	1047129	1047128.5	1185314	60.73833
14:59:00	61.4	70.4	50.9	0	0	1380384	1380384	1380384.3	1187444	60.74613
15:00:00	59.2	66.7	47.9	0	0	831764	831764	831763.77	1179637	60.71749
15:01:00	59.2	63.6	54.9	0	0	831764	831764	831763.77	1200596	60.79397
15:02:00	58.5	64.8	49.9	0	0	707946	707946	707945.78	1204186	60.80693
15:03:00	62.6	68	56.9	0	0	1819701	1819701	1819700.9	1219417	60.86152
15:04:00	57.6	62.9	49.9	0	0	575440	575440	575439.94	1205376	60.81122
15:05:00	60.6	65.7	48.9	0	0	1148154	1148154	1148153.6	1219876	60.86316
15:06:00	59.8	64.7	50.9	0	0	954993	954993	954992.59	1225966	60.88478
15:07:00	60.3	68.3	43.9	0	0	1071519	1071519	1071519.3	1228324	60.89313
15:08:00	59.8	64.4	50.9	0	0	954993	954993	954992.59	1226753	60.88757

15:09:00	63	70	51.9	0	0	1995262	1995262	1995262.3	1230874	60.90214
15:10:00	57.5	62	46.9	0	0	562341	562341	562341.33	1217657	60.85525
15:11:00	62.4	69.7	53.9	0	0	1737801	1737801	1737800.8	1230767	60.90176
15:12:00	62	68.2	47.9	0	0	1584893	1584893	1584893.2	1222786	60.87351
15:13:00	61.7	68.8	47.9	0	0	1479108	1479108	1479108.4	1211226	60.83225
15:14:00	60.8	65.6	50.9	0	0	1202264	1202264	1202264.4	1198648	60.78692
15:15:00	57.2	64	45.9	0	0	524807	524807	524807.46	1195277	60.77468
15:16:00	62.2	65.8	49.9	0	0	1659587	1659587	1659586.9	1206111	60.81387
15:17:00	57	63.3	47.9	0	0	501187	501187	501187.23	1206111	60.81387
15:18:00	62.8	68.4	53.9	0	0	1905461	1905461	1905460.7	1214046	60.84235
15:19:00	59.1	63.1	45.9	0	0	812831	812831	812830.52	1209318	60.82541
15:20:00	63.2	71.6	49.9	0	0	2089296	2089296	2089296.1	1220997	60.86715
15:21:00	61.5	65.2	52.9	0	0	1412538	1412538	1412537.5	1210266	60.82881
15:22:00	59.6	64	51.9	0	0	912011	912011	912010.84	1208194	60.82137
15:23:00	61	67.5	47.9	0	0	1258925	1258925	1258925.4	1232975	60.90954
15:24:00	59.3	64.7	48.9	0	0	851138	851138	851138.04	1248455	60.96373
15:25:00	62.5	71.4	52.9	0	0	1778279	1778279	1778279.4	1252128	60.97649
15:26:00	61.1	67.1	50.9	0	0	1288250	1288250	1288249.6	1239943	60.93402
15:27:00	59.9	66.2	47.9	0	0	977237	977237	977237.22	1241478	60.93939
15:28:00	60.3	65.5	49.9	0	0	1071519	1071519	1071519.3	1257688	60.99573
15:29:00	60.6	64	53.9	0	0	1148154	1148154	1148153.6	1263920	61.0172
15:30:00	60.4	64.4	51.9	0	0	1096478	1096478	1096478.2	1283855	61.08516
15:31:00	63.5	72.1	49.9	0	0	2238721	2238721	2238721.1	1282635	61.08103
15:32:00	60.4	63.6	49.9	0	0	1096478	1096478	1096478.2	1269975	61.03795
15:33:00	56.5	61.9	47.9	0	0	446684	446684	446683.59	1280664	61.07435
15:34:00	62.4	66.5	50.9	0	0	1737801	1737801	1737800.8	1302857	61.14897
15:35:00	60.9	65.6	50.9	0	0	1230269	1230269	1230268.8	1301553	61.14462
15:36:00	58.2	64.3	45.9	0	0	660693	660693	660693.45	1302520	61.14784
15:37:00	61.7	65.3	49.9	0	0	1479108	1479108	1479108.4	1315050	61.18942
15:38:00	58.7	62.5	52.9	0	0	741310	741310	741310.24	1329469	61.23678
15:39:00	61	68.7	52.9	0	0	1258925	1258925	1258925.4	1339597	61.26974
15:40:00	61.1	66.8	52.9	0	0	1288250	1288250	1288249.6	1337315	61.26234
15:41:00	59.8	64.8	48.9	0	0	954993	954993	954992.59	1338850	61.26732
15:42:00	59.8	65.9	49.9	0	0	954993	954993	954992.59	1364799	61.35069
15:43:00	59.7	65.4	48.9	0	0	933254	933254	933254.3	1365169	61.35187
15:44:00	60.1	66.2	48.9	0	0	1023293	1023293	1023293	1380650	61.40084
15:45:00	62	70.4	49.9	0	0	1584893	1584893	1584893.2	1403576	61.47236
15:46:00	60.1	63.5	52.9	0	0	1023293	1023293	1023293	1407489	61.48445
15:47:00	60.5	63.9	52.9	0	0	1122018	1122018	1122018.5	1416248	61.51139
15:48:00	62.1	66.7	51.9	0	0	1621810	1621810	1621810.1	1431577	61.55815
15:49:00	59.4	66.6	45.9	0	0	870964	870964	870963.59	1432206	61.56006
15:50:00	61.1	65.3	49.9	0	0	1288250	1288250	1288249.6	1455871	61.63123
15:51:00	59.6	64.4	45.9	0	0	912011	912011	912010.84	1457407	61.63581
15:52:00	58.5	64	46.9	0	0	707946	707946	707945.78	1456392	61.63278
15:53:00	60.7	65.2	47.9	0	0	1174898	1174898	1174897.6	1470407	61.67437
15:54:00	62.7	65.6	53.9	0	0	1862087	1862087	1862087.1	1481153	61.706
15:55:00	59.9	66.3	44.9	0	0	977237	977237	977237.22	1469255	61.67097
15:56:00	59.9	64	46.9	0	0	977237	977237	977237.22	1476510	61.69236
15:57:00	62.5	67.9	50.9	0	0	1778279	1778279	1778279.4	1481204	61.70615
15:58:00	60.7	66.1	50.9	0	0	1174898	1174898	1174897.6	1482601	61.71024
15:59:00	59.6	64.8	50.9	0	0	912011	912011	912010.84	1491324	61.73572
16:00:00	63.2	69.2	50.9	0	0	2089296	2089296	2089296.1	1523096	61.82727
16:01:00	60.2	64.4	46.9	0	0	1047129	1047129	1047128.5	1515305	61.805
16:02:00	62.1	69.7	52.9	0	0	1621810	1621810	1621810.1	1524883	61.83237
16:03:00	59.9	63.9	50.9	0	0	977237	977237	977237.22	1536034	61.86401
16:04:00	61.6	64.9	53.9	0	0	1445440	1445440	1445439.8	1538883	61.87205
16:05:00	61.8	65.6	54.9	0	0	1513561	1513561	1513561.2	1541822	61.88034
16:06:00	60.4	67.2	50.9	0	0	1096478	1096478	1096478.2	1544900	61.889
16:07:00	59.9	65.9	50.9	0	0	977237	977237	977237.22	1556954	61.92276
16:08:00	60.8	64.8	51.9	0	0	1202264	1202264	1202264.4	1585526	62.00173
16:09:00	60.8	65.6	49.9	0	0	1202264	1202264	1202264.4	1601120	62.04424
16:10:00	61.3	68.3	46.9	0	0	1348963	1348963	1348962.9	1601120	62.04424
16:11:00	61	66.9	48.9	0	0	1258925	1258925	1258925.4	1609673	62.06738
16:12:00	59.5	66.3	47.9	0	0	891251	891251	891250.94	1631530	62.12595
16:13:00	58.6	62.7	49.9	0	0	724436	724436	724435.96	1659516	62.19981
16:14:00	60	66.4	45.9	0	0	1000000	1000000	1000000	1677080	62.24554
16:15:00	60.7	64.7	50.9	0	0	1174898	1174898	1174897.6	1688073	62.27391
16:16:00	62.2	66.4	50.9	0	0	1659587	1659587	1659586.9	1688073	62.27391
16:17:00	59.9	66	45.9	0	0	977237	977237	977237.22	1693668	62.28828
16:18:00	62.1	69.6	54.9	0	0	1621810	1621810	1621810.1	1699863	62.30414
16:19:00	61.8	67.5	52.9	0	0	1513561	1513561	1513561.2	1701137	62.30739
16:20:00	61.6	65.1	50.9	0	0	1445440	1445440	1445439.8	1698394	62.30038
16:21:00	61.1	67.5	50.9	0	0	1288250	1288250	1288249.6	1696274	62.29496
16:22:00	63.8	67.1	53.9	0	0	2398833	2398833	2398832.9	1700617	62.30607
16:23:00	63.4	68.2	50.9	0	0	2187762	2187762	2187761.6	1688940	62.27614
16:24:00	60.3	64	51.9	0	0	1071519	1071519	1071519.3	1683513	62.26216
16:25:00	60.2	65.1	46.9	0	0	1047129	1047129	1047128.5	1692684	62.28576
16:26:00	61.4	65.7	52.9	0	0	1380384	1380384	1380384.3	1723299	62.36361
16:27:00	62.9	67.2	49.9	0	0	1949845	1949845	1949844.6	1731328	62.38379
16:28:00	61.6	65.6	52.9	0	0	1445440	1445440	1445439.8	1719812	62.35481
16:29:00	63.7	68.5	58.9	0	0	2344229	2344229	2344228.8	1713174	62.33801
16:30:00	60.1	66.3	50.9	0	0	1023293	1023293	1023293	1702407	62.31063
16:31:00	61.7	66.1	50.9	0	0	1479108	1479108	1479108.4	1701640	62.30868
16:32:00	62.4	65.9	50.9	0	0	1737801	1737801	1737800.8	1705292	62.31799
16:33:00	62.5	68	53.9	0	0	1778279	1778279	1778279.4	1705967	62.31971
16:34:00	62.2	65.9	56.9	0	0	1659587	1659587	1659586.9	1695910	62.29403
16:35:00	61.1	64	55.9	0	0	1288250	1288250	1288249.6	1692341	62.28488
16:36:00	61.5	65.2	52.9	0	0	1412538	1412538	1412537.5	1701199	62.30755
16:37:00	63.7	69.7	55.9	0	0	2344229	2344229	2344228.8	1699627	62.30354

16:38:00	61.3	69.1	49.9	0	0	1348963	1348963	1348962.9	1693054	62.28671
16:39:00	60.5	65.2	49.9	0	0	1122018	1122018	1122018.5	1695797	62.29374
16:40:00	61.4	66.9	52.9	0	0	1380384	1380384	1380384.3	1704127	62.31502
16:41:00	64	68.3	53.9	0	0	2511886	2511886	2511886.4	1703604	62.31369
16:42:00	59.9	65.6	44.9	0	0	977237	977237	977237.22	1689399	62.27732
16:43:00	62.7	66.3	57.9	0	0	1862087	1862087	1862087.1	1697202	62.29734
16:44:00	63.8	70.7	55.9	0	0	2398833	2398833	2398832.9	1697925	62.29918
16:45:00	62.6	66.5	53.9	0	0	1819701	1819701	1819700.9	1694407	62.29018
16:46:00	61.9	65.3	51.9	0	0	1548817	1548817	1548816.6	1688731	62.2756
16:47:00	63.1	68.3	50.9	0	0	2041738	2041738	2041737.9	1687008	62.27117
16:48:00	62.2	66.4	52.9	0	0	1659587	1659587	1659586.9	1678792	62.24997
16:49:00	63.6	66	58.9	0	0	2290868	2290868	2290867.7	1679437	62.25164
16:50:00	61.4	66.8	48.9	0	0	1380384	1380384	1380384.3	1669559	62.22602
16:51:00	59.3	65.5	49.9	0	0	851138	851138	851138.04	1682186	62.25874
16:52:00	61.9	66.3	56.9	0	0	1548817	1548817	1548816.6	1688982	62.27625
16:53:00	62.6	65.6	45.9	0	0	1819701	1819701	1819700.9	1687259	62.27182
16:54:00	60.6	65.9	50.9	0	0	1148154	1148154	1148153.6	1683346	62.26173
16:55:00	61.5	65.7	49.9	0	0	1412538	1412538	1412537.5	1685681	62.26775
16:56:00	61	66.4	47.9	0	0	1258925	1258925	1258925.4	1696960	62.29672
16:57:00	62.7	67.1	51.9	0	0	1862087	1862087	1862087.1	1695114	62.29199
16:58:00	62.3	66	55.9	0	0	1698244	1698244	1698243.7	1686050	62.2687
16:59:00	64.5	70.8	50.9	0	0	2818383	2818383	2818382.9	1703650	62.3138
17:00:00	62.1	68.3	49.9	0	0	1621810	1621810	1621810.1	1690706	62.28068
17:01:00	62.1	65.5	54.9	0	0	1621810	1621810	1621810.1	1687766	62.27312
17:02:00	63.6	66.9	57.9	0	0	2290868	2290868	2290867.7	1687766	62.27312
17:03:00	60.6	65.9	51.9	0	0	1148154	1148154	1148153.6	1671556	62.23121
17:04:00	62.1	67.3	51.9	0	0	1621810	1621810	1621810.1	1686449	62.26973
17:05:00	62.3	65.6	55.9	0	0	1698244	1698244	1698243.7	1684071	62.2636
17:06:00	62.6	66	51.9	0	0	1819701	1819701	1819700.9	1678773	62.24992
17:07:00	64.3	68.4	54.9	0	0	2691535	2691535	2691534.8	1672535	62.23375
17:08:00	63.3	66.8	49.9	0	0	2137962	2137962	2137962.1	1658711	62.19771
17:09:00	60.8	65.2	51.9	0	0	1202264	1202264	1202264.4	1642214	62.1543
17:10:00	62.7	66	57.9	0	0	1862087	1862087	1862087.1	1640877	62.15076
17:11:00	64.1	68.1	52.9	0	0	2570396	2570396	2570395.8	1639480	62.14706
17:12:00	64.1	69	57.9	0	0	2570396	2570396	2570395.8	1622454	62.10172
17:13:00	62.5	66.7	50.9	0	0	1778279	1778279	1778279.4	1614436	62.08021
17:14:00	62.2	65.9	49.9	0	0	1659587	1659587	1659586.9	1615832	62.08396
17:15:00	60.7	65.2	49.9	0	0	1174898	1174898	1174897.6	1601720	62.04587
17:16:00	63	68.3	58.9	0	0	1995262	1995262	1995262.3	1617771	62.08917
17:17:00	61.3	65.5	50.9	0	0	1348963	1348963	1348962.9	1615551	62.08321
17:18:00	62.3	66.5	57.9	0	0	1698244	1698244	1698243.7	1610927	62.07076
17:19:00	61.3	64.9	50.9	0	0	1348963	1348963	1348962.9	1598910	62.03824
17:20:00	61.2	66.4	50.9	0	0	1318257	1318257	1318256.7	1609682	62.0674
17:21:00	61.9	65.6	52.9	0	0	1548817	1548817	1548816.6	1620209	62.09571
17:22:00	62.3	65.9	56.9	0	0	1698244	1698244	1698243.7	1628424	62.11767
17:23:00	62.7	67.2	48.9	0	0	1862087	1862087	1862087.1	1633374	62.13086
17:24:00	62.1	67.2	49.9	0	0	1621810	1621810	1621810.1	1621475	62.0991
17:25:00	64.6	70.9	53.9	0	0	2884032	2884032	2884031.5	1631757	62.12656
17:26:00	62.7	66.2	58.9	0	0	1862087	1862087	1862087.1	1623670	62.10498
17:27:00	61	66.7	48.9	0	0	1258925	1258925	1258925.4	1613140	62.07672
17:28:00	60.2	64.4	49.9	0	0	1047129	1047129	1047128.5	1615165	62.08217
17:29:00	62.3	65.5	52.9	0	0	1698244	1698244	1698243.7	1622364	62.10148
17:30:00	59.9	65.5	48.9	0	0	977237	977237	977237.22	1626558	62.11269
17:31:00	62.3	65.2	55.9	0	0	1698244	1698244	1698243.7	1641305	62.15189
17:32:00	62.5	67.2	50.9	0	0	1778279	1778279	1778279.4	1630860	62.12417
17:33:00	60.7	67.1	46.9	0	0	1174898	1174898	1174897.6	1638534	62.14455
17:34:00	61.6	66.8	54.9	0	0	1445440	1445440	1445439.8	1632815	62.12937
17:35:00	62.6	69.5	48.9	0	0	1819701	1819701	1819700.9	1640482	62.14971
17:36:00	61.2	66.7	47.9	0	0	1318257	1318257	1318256.7	1628854	62.11882
17:37:00	62.9	65.9	53.9	0	0	1949845	1949845	1949844.6	1637918	62.14292
17:38:00	61.8	65.5	51.9	0	0	1513561	1513561	1513561.2	1641883	62.15342
17:39:00	62.1	66.2	54.9	0	0	1621810	1621810	1621810.1	1655727	62.18989
17:40:00	61.3	65.9	54.9	0	0	1348963	1348963	1348962.9	1661195	62.2042
17:41:00	62.2	67.1	52.9	0	0	1659587	1659587	1659586.9	1658750	62.19781
17:42:00	61.6	64.5	51.9	0	0	1445440	1445440	1445439.8	1665911	62.21652
17:43:00	62.8	67.4	57.9	0	0	1905461	1905461	1905460.7	1675850	62.24235
17:44:00	63.4	66.9	54.9	0	0	2187762	2187762	2187761.6	1677346	62.24623
17:45:00	61.7	66.1	53.9	0	0	1479108	1479108	1479108.4	1666110	62.21704
17:46:00	61.6	66.9	52.9	0	0	1445440	1445440	1445439.8	1663941	62.21138
17:47:00	61.9	64.8	52.9	0	0	1548817	1548817	1548816.6	1672347	62.23326
17:48:00	62.3	65.6	55.9	0	0	1698244	1698244	1698243.7	1666571	62.21824
17:49:00	62.3	68.8	54.9	0	0	1698244	1698244	1698243.7	1656126	62.19093
17:50:00	63.3	68.8	48.9	0	0	2137962	2137962	2137962.1	1658150	62.19624
17:51:00	61	65.2	49.9	0	0	1258925	1258925	1258925.4	1652156	62.18051
17:52:00	61.6	64.6	49.9	0	0	1445440	1445440	1445439.8	1656987	62.19319
17:53:00	62	65.2	53.9	0	0	1584893	1584893	1584893.2	1654367	62.18632
17:54:00	61.1	65.1	50.9	0	0	1288250	1288250	1288249.6	1653178	62.1832
17:55:00	63.2	66.7	54.9	0	0	2089296	2089296	2089296.1	1670778	62.22919
17:56:00	60.6	67.7	47.9	0	0	1148154	1148154	1148153.6	1661770	62.20571
17:57:00	61.2	66.2	50.9	0	0	1318257	1318257	1318256.7	1668448	62.22313
17:58:00	64.4	70.3	52.9	0	0	2754229	2754229	2754228.7	1658276	62.19657
17:59:00	63.1	69.6	51.9	0	0	2041738	2041738	2041737.9	1636463	62.13906
18:00:00	61.6	65.9	50.9	0	0	1445440	1445440	1445439.8	1615981	62.08436
18:01:00	62.1	66.3	52.9	0	0	1621810	1621810	1621810.1	1619550	62.09394
18:02:00	61.2	68	50.9	0	0	1318257	1318257	1318256.7	1615003	62.08173
18:03:00	63.1	69.6	54.9	0	0	2041738	2041738	2041737.9	1631213	62.12511
18:04:00	61.7	65.2	49.9	0	0	1479108	1479108	1479108.4	1618655	62.09154
18:05:00	61.4	66.7	45.9	0	0	1380384	1380384	1380384.3	1636843	62.14007
18:06:00	61.6	67.1	52.9	0	0	1445440	1445440	1445439.8	1627075	62.11408

18:07:00	62.7	66.8	55.9	0	0	1862087	1862087	1862087.1	1627075	62.11408
18:08:00	60.6	64.7	51.9	0	0	1148154	1148154	1148153.6	1628538	62.11798
18:09:00	60.5	65.3	46.9	0	0	1122018	1122018	1122018.5	1632944	62.12971
18:10:00	62.5	66.7	50.9	0	0	1778279	1778279	1778279.4	1643882	62.15871
18:11:00	61.9	69.6	52.9	0	0	1548817	1548817	1548816.6	1641904	62.15348
18:12:00	63.2	68.4	51.9	0	0	2089296	2089296	2089296.1	1643120	62.15669
18:13:00	62.7	66.5	54.9	0	0	1862087	1862087	1862087.1	1630781	62.12396
18:14:00	59.1	66	43.9	0	0	812831	812831	812830.52	1612684	62.07549
18:15:00	63.3	68.5	52.9	0	0	2137962	2137962	2137962.1	1642975	62.15631
18:16:00	62.7	67.2	49.9	0	0	1862087	1862087	1862087.1	1636305	62.13864
18:17:00	60.3	65.2	48.9	0	0	1071519	1071519	1071519.3	1624407	62.10695
18:18:00	59.9	64.5	51.9	0	0	977237	977237	977237.22	1640577	62.14997
18:19:00	63	69.6	52.9	0	0	1995262	1995262	1995262.3	1648941	62.17205
18:20:00	62.9	67.7	53.9	0	0	1949845	1949845	1949844.6	1631241	62.12518
18:21:00	63.1	69.2	51.9	0	0	2041738	2041738	2041737.9	1619248	62.09313
18:22:00	63	67.3	56.9	0	0	1995262	1995262	1995262.3	1612249	62.07432
18:23:00	60.6	63.6	55.9	0	0	1148154	1148154	1148153.6	1602537	62.04808
18:24:00	63.5	67.3	52.9	0	0	2238721	2238721	2238721.1	1605372	62.05576
18:25:00	63.8	67.1	57.9	0	0	2398833	2398833	2398832.9	1583261	61.99552
18:26:00	60.9	65.4	48.9	0	0	1230269	1230269	1230268.8	1569695	61.95815
18:27:00	61.4	64.5	55.9	0	0	1380384	1380384	1380384.3	1578154	61.98149
18:28:00	61.7	66	55.9	0	0	1479108	1479108	1479108.4	1570348	61.95996
18:29:00	62.9	67.3	52.9	0	0	1949845	1949845	1949844.6	1566200	61.94847
18:30:00	62.7	67.1	52.9	0	0	1862087	1862087	1862087.1	1562007	61.93683
18:31:00	60.3	65	50.9	0	0	1071519	1071519	1071519.3	1569153	61.95665
18:32:00	63.5	67.5	53.9	0	0	2238721	2238721	2238721.1	1570431	61.96019
18:33:00	59.2	64.9	47.9	0	0	831764	831764	831763.77	1543879	61.88613
18:34:00	62.8	69.9	49.9	0	0	1905461	1905461	1905460.7	1548717	61.89972
18:35:00	60.5	64.4	50.9	0	0	1122018	1122018	1122018.5	1532514	61.85404
18:36:00	62.7	66.3	50.9	0	0	1862087	1862087	1862087.1	1534318	61.85915
18:37:00	63.4	67.9	54.9	0	0	2187762	2187762	2187761.6	1524265	61.8306
18:38:00	63.7	66.4	60.9	0	0	2344229	2344229	2344228.8	1514217	61.80188
18:39:00	62.9	68	50.9	0	0	1949845	1949845	1949844.6	1493005	61.74061
18:40:00	60.8	64.5	48.9	0	0	1202264	1202264	1202264.4	1507481	61.78252
18:41:00	63.2	70.7	53.9	0	0	2089296	2089296	2089296.1	1509414	61.78808
18:42:00	63.1	67.4	52.9	0	0	2041738	2041738	2041737.9	1490509	61.73335
18:43:00	63	68	49.9	0	0	1995262	1995262	1995262.3	1484140	61.71475
18:44:00	61.8	67.9	46.9	0	0	1513561	1513561	1513561.2	1476699	61.69292
18:45:00	61.3	66.9	48.9	0	0	1348963	1348963	1348962.9	1472455	61.68042
18:46:00	62.9	66.8	51.9	0	0	1949845	1949845	1949844.6	1463211	61.65307
18:47:00	60.8	64.7	53.9	0	0	1202264	1202264	1202264.4	1457129	61.63498
18:48:00	60.3	64.6	49.9	0	0	1071519	1071519	1071519.3	1449446	61.61202
18:49:00	62.6	65.6	56.9	0	0	1819701	1819701	1819700.9	1449862	61.61327
18:50:00	62.5	69.3	54.9	0	0	1778279	1778279	1778279.4	1441005	61.58665
18:51:00	61.9	64.9	53.9	0	0	1548817	1548817	1548816.6	1431404	61.55762
18:52:00	61.1	67	51.9	0	0	1288250	1288250	1288249.6	1428074	61.54751
18:53:00	61.8	66	53.9	0	0	1513561	1513561	1513561.2	1456935	61.6344
18:54:00	63.7	67.1	57.9	0	0	2344229	2344229	2344228.8	1445572	61.6004
18:55:00	61.9	66.4	51.9	0	0	1548817	1548817	1548816.6	1430592	61.55516
18:56:00	61.9	66.8	48.9	0	0	1548817	1548817	1548816.6	1423053	61.53221
18:57:00	58.5	65.5	46.9	0	0	707946	707946	707945.78	1412094	61.49864
18:58:00	61.6	66	54.9	0	0	1445440	1445440	1445439.8	1414811	61.50698
18:59:00	59.1	63.9	48.9	0	0	812831	812831	812830.52	1413726	61.50365
19:00:00	62.2	67.5	51.9	0	0	1659587	1659587	1659586.9	1416846	61.51323
19:01:00	61.3	66	52.9	5	0	4265795	1348963	1348962.9	1427367	61.54536
19:02:00	63.6	68.9	53.9	5	0	7244360	2290868	2290867.7	1420085	61.52314
19:03:00	61.1	64.3	46.9	5	0	4073803	1288250	1288249.6	1417536	61.51534
19:04:00	64.1	70.3	44.9	5	0	8128305	2570396	2570395.8	1432528	61.56103
19:05:00	59	63.2	48.9	5	0	2511886	794328	794328.23	1427000	61.54424
19:06:00	61.6	66.3	51.9	5	0	4570882	1445440	1445439.8	1444090	61.59594
19:07:00	62.9	68.1	51.9	5	0	6165950	1949845	1949844.6	1451034	61.61678
19:08:00	61.5	66	52.9	5	0	4466836	1412538	1412537.5	1888267	62.76063
19:09:00	62.5	66.4	53.9	5	0	5623413	1778279	1778279.4	1896482	62.77949
19:10:00	62.2	66.5	49.9	5	0	5248075	1659587	1659586.9	1907756	62.80523
19:11:00	62.1	67.2	50.9	5	0	5128614	1621810	1621810.1	1908401	62.8067
19:12:00	61.3	64.4	57.9	5	0	4265795	1348963	1348962.9	1914625	62.82084
19:13:00	58.9	64.7	49.9	5	0	2454709	776247	776247.12	1937001	62.8713
19:14:00	64.2	71.1	53.9	5	0	8317638	2630268	2630268	1955821	62.91329
19:15:00	62.4	67.4	48.9	5	0	5495409	1737801	1737800.8	1940287	62.87866
19:16:00	60.6	66.1	50.9	5	0	3630781	1148154	1148153.6	1935976	62.869
19:17:00	63.1	66.3	51.9	5	0	6456542	2041738	2041737.9	1937344	62.87207
19:18:00	61.7	66.3	55.9	5	0	4677351	1479108	1479108.4	1937344	62.87207
19:19:00	59.7	63.9	49.9	5	0	2951209	933254	933254.3	1947514	62.89481
19:20:00	60.9	67.9	47.9	5	0	3890451	1230269	1230268.8	1967593	62.93935
19:21:00	62.1	65.6	52.9	5	0	5128614	1621810	1621810.1	1981910	62.97084
19:22:00	61.5	67	51.9	5	0	4466836	1412538	1412537.5	1974917	62.95549
19:23:00	61.2	66.8	51.9	5	0	4168694	1318257	1318256.7	1977790	62.9618
19:24:00	59.6	63.9	46.9	5	0	2884032	912011	912010.84	1986147	62.98011
19:25:00	62	66.7	50.9	5	0	5011872	1584893	1584893.2	1993954	62.99715
19:26:00	62.4	66.7	50.9	5	0	5495409	1737801	1737800.8	1997177	63.00417
19:27:00	59.6	64.8	49.9	5	0	2884032	912011	912010.84	1999248	63.00867
19:28:00	60.9	66	48.9	5	0	3890451	1230269	1230268.8	2027886	63.07044
19:29:00	62.3	67.2	49.9	5	0	5370318	1698244	1698243.7	2034412	63.08439
19:30:00	63.6	69.7	54.9	5	0	7244360	2290868	2290867.7	2028078	63.07085
19:31:00	60.6	65.2	52.9	5	0	3630781	1148154	1148153.6	2010402	63.03283
19:32:00	58.1	63.1	48.9	5	0	2041738	645654	645654.23	2018926	63.0512
19:33:00	60.5	66.2	50.9	5	0	3548134	1122018	1122018.5	2032255	63.07978
19:34:00	59.7	63.9	52.9	5	0	2951209	933254	933254.3	2032691	63.08071
19:35:00	60.9	64.6	52.9	5	0	3890451	1230269	1230268.8	2031991	63.07922

19:36:00	61	67.3	49.9	5	0	3981072	1258925	1258925.4	2038517	63.09314
19:37:00	62	65.6	49.9	5	0	5011872	1584893	1584893.2	2031082	63.07727
19:38:00	60.3	66	51.9	5	0	3388442	1071519	1071519.3	2029893	63.07473
19:39:00	64.5	69.5	57.9	5	0	8912509	2818383	2818382.9	2071170	63.16216
19:40:00	61.2	66.8	52.9	5	0	4168694	1318257	1318256.7	2050612	63.11883
19:41:00	59.8	65.6	46.9	5	0	3019952	954993	954992.59	2050111	63.11777
19:42:00	62.2	67.2	52.9	5	0	5248075	1659587	1659586.9	2064523	63.1482
19:43:00	61.9	65.1	53.9	5	0	4897788	1548817	1548816.6	2053151	63.12421
19:44:00	61	65.7	50.9	5	0	3981072	1258925	1258925.4	2050344	63.11827
19:45:00	59	64.5	49.9	5	0	2511886	794328	794328.23	2037909	63.09185
19:46:00	62	68	50.9	5	0	5011872	1584893	1584893.2	2052974	63.12384
19:47:00	58.7	63.1	49.9	5	0	2344229	741310	741310.24	2047064	63.11131
19:48:00	60.4	64.2	50.9	5	0	3467369	1096478	1096478.2	2059361	63.13732
19:49:00	61.1	65.5	52.9	5	0	4073803	1288250	1288249.6	2061124	63.14104
19:50:00	60.8	65.9	47.9	5	0	3801894	1202264	1202264.4	2119425	63.26218
19:51:00	61.3	68.2	45.9	5	0	4265795	1348963	1348962.9	2126417	63.27648
19:52:00	64.8	74	51.9	5	0	9549926	3019952	3019951.7	2134969	63.29392
19:53:00	59.2	64.4	50.9	5	0	2630268	831764	831763.77	2123707	63.27095
19:54:00	61.6	66.7	48.9	5	0	4570882	1445440	1445439.8	2140879	63.30592
19:55:00	60.4	65.1	51.9	5	0	3467369	1096478	1096478.2	2154100	63.33266
19:56:00	59.5	64.1	46.9	5	0	2818383	891251	891250.94	2150680	63.32576
19:57:00	59.4	64	49.9	5	0	2754229	870964	870963.59	2150011	63.32441
19:58:00	61.4	66.3	51.9	5	0	4365158	1380384	1380384.3	2148433	63.32122
19:59:00	60	65.5	49.9	5	0	3162278	1000000	1000000	2145008	63.31429
20:00:00	63.6	67.2	49.9	5	0	7244360	2290868	2290867.7	2154756	63.33398
20:01:00	59.6	63.9	49.9	5	0	2884032	912011	912010.84	2148333	63.32102
20:02:00	63.3	68.3	52.9	5	0	6760830	2137962	2137962.1	2154115	63.33269
20:03:00	63.4	72	54.9	5	0	6918310	2187762	2187761.6	2137618	63.2993
20:04:00	63.5	66.4	58.9	5	0	7079458	2238721	2238721.1	2114093	63.25124
20:05:00	62.6	68.3	52.9	5	0	5754399	1819701	1819700.9	2108538	63.23982
20:06:00	62.7	66.8	56.9	5	0	5888437	1862087	1862087.1	2095265	63.21239
20:07:00	74.5	86.4	55.9	5	0	89125094	28183829	28183829	2090645	63.2028
20:08:00	62.8	69.5	53.9	5	0	6025596	1905461	1905460.7	1663754	62.21089
20:09:00	63.9	67.9	54.9	5	0	7762471	2454709	2454708.9	1655003	62.18799
20:10:00	62.3	65.9	53.9	5	0	5370318	1698244	1698243.7	1635073	62.13537
20:11:00	63	68.8	51.9	5	0	6309573	1995262	1995262.3	1633800	62.13199
20:12:00	64.3	69.5	55.9	5	0	8511380	2691535	2691534.8	1619246	62.09313
20:13:00	62.8	69.9	52.9	5	0	6025596	1905461	1905460.7	1587625	62.00748
20:14:00	62.3	68.8	49.9	5	0	5370318	1698244	1698243.7	1575449	61.97404
20:15:00	61.7	65.2	51.9	5	0	4677351	1479108	1479108.4	1559500	61.92986
20:16:00	60.9	66.7	49.9	5	0	3890451	1230269	1230268.8	1551904	61.90865
20:17:00	63.1	66.8	54.9	5	0	6456542	2041738	2041737.9	1551904	61.90865
20:18:00	63.2	71	52.9	5	0	6606934	2089296	2089296.1	1532060	61.85276
20:19:00	63.3	66.8	53.9	5	0	6760830	2137962	2137962.1	1517276	61.81065
20:20:00	63.2	67.3	55.9	5	0	6606934	2089296	2089296.1	1557825	61.92519
20:21:00	60.8	64.4	53.9	5	0	3801894	1202264	1202264.4	1548229	61.89835
20:22:00	62	67.1	53.9	5	0	5011872	1584893	1584893.2	1545247	61.88998
20:23:00	62.6	66.8	55.9	5	0	5754399	1819701	1819700.9	1553653	61.91354
20:24:00	61.4	64.9	55.9	5	0	4365158	1380384	1380384.3	1534593	61.85993
20:25:00	62.5	66.8	48.9	5	0	5623413	1778279	1778279.4	1533558	61.857
20:26:00	62.7	69.2	51.9	5	0	5888437	1862087	1862087.1	1523957	61.82973
20:27:00	64.2	67.3	57.9	5	0	8317638	2630268	2630268	1508123	61.78437
20:28:00	62.1	66.2	51.9	5	0	5128614	1621810	1621810.1	1485267	61.71805
20:29:00	61.2	67.5	52.9	5	0	4168694	1318257	1318256.7	1477818	61.69621
20:30:00	60.9	65.1	55.9	5	0	3890451	1230269	1230268.8	1477318	61.69474
20:31:00	62.2	66.8	55.9	5	0	5248075	1659587	1659586.9	1473480	61.68344
20:32:00	61.6	66.2	53.9	5	0	4570882	1445440	1445439.8	1466325	61.6623
20:33:00	60.6	64.3	50.9	5	0	3630781	1148154	1148153.6	1473992	61.68495
20:34:00	59.5	63.9	47.9	5	0	2818383	891251	891250.94	1478947	61.69953
20:35:00	62.1	65.5	55.9	5	0	5128614	1621810	1621810.1	1486575	61.72187
20:36:00	59.1	65.2	48.9	5	0	2570396	812831	812830.52	1476212	61.69149
20:37:00	61.8	65.1	56.9	5	0	4786301	1513561	1513561.2	1477519	61.69533
20:38:00	65.5	74.2	56.9	5	0	11220185	3548134	3548133.9	1474776	61.68726
20:39:00	62	66.5	55.9	5	0	5011872	1584893	1584893.2	1454711	61.62777
20:40:00	61.1	67.2	52.9	5	0	4073803	1288250	1288249.6	1443850	61.59522
20:41:00	62.6	70.3	51.9	5	0	5754399	1819701	1819700.9	1444862	61.59826
20:42:00	59.9	64.1	53.9	5	0	3090295	977237	977237.22	1433234	61.56317
20:43:00	61.4	65.4	48.9	5	0	4365158	1380384	1380384.3	1442173	61.59017
20:44:00	57.1	65.5	48.9	5	0	1621810	512861	512861.38	1431240	61.55712
20:45:00	62.3	66.8	52.9	5	0	5370318	1698244	1698243.7	1431240	61.55712
20:46:00	60.9	65.2	47.9	5	0	3890451	1230269	1230268.8	1423440	61.53339
20:47:00	61.7	68.5	50.9	5	0	4677351	1479108	1479108.4	1422518	61.53058
20:48:00	60.8	64.6	51.9	5	0	3801894	1202264	1202264.4	1410803	61.49466
20:49:00	66.8	75.2	58.9	5	0	15135612	4786301	4786300.9	1411270	61.4961
20:50:00	62.1	65.2	53.9	5	0	5128614	1621810	1621810.1	1340245	61.27184
20:51:00	62.7	66.9	55.9	5	0	5888437	1862087	1862087.1	1329502	61.23689
20:52:00	63.7	72	54.9	5	0	7413102	2344229	2344228.8	1321474	61.21059
20:53:00	62.7	72.4	52.9	5	0	5888437	1862087	1862087.1	1301539	61.14457
20:54:00	63.5	69.6	53.9	5	0	7079458	2238721	2238721.1	1281265	61.07639
20:55:00	59.5	63.9	48.9	5	0	2818383	891251	891250.94	1262654	61.01284
20:56:00	59.3	65.1	47.9	5	0	2691535	851138	851138.04	1256347	60.9911
20:57:00	58.9	63.6	48.9	5	0	2454709	776247	776247.12	1258449	60.99836
20:58:00	60.7	68	50.9	5	0	3715352	1174898	1174897.6	1255325	60.98756
20:59:00	62	65.8	53.9	5	0	5011872	1584893	1584893.2	1255782	60.98914
21:00:00	62.8	68.3	51.9	5	0	6025596	1905461	1905460.7	1239643	60.93297
21:01:00	61	63.6	54.9	5	0	3981072	1258925	1258925.4	1232537	60.908
21:02:00	60.6	64.2	54.9	5	0	3630781	1148154	1148153.6	1223086	60.87457
21:03:00	58.9	65.9	50.9	5	0	2454709	776247	776247.12	1211746	60.83411
21:04:00	62.8	66.3	58.9	5	0	6025596	1905461	1905460.7	1205145	60.81039

21:05:00	60.1	64.4	49.9	5	0	3235937	1023293	1023293	1193425	60.76795
21:06:00	62	65.9	58.9	5	0	5011872	1584893	1584893.2	1211191	60.83213
21:07:00	64.1	68.7	59.9	5	0	8128305	2570396	2570395.8	1201443	60.79703
21:08:00	61.4	66.1	52.9	5	0	4365158	1380384	1380384.3	1187567	60.74658
21:09:00	61	65.6	51.9	5	0	3981072	1258925	1258925.4	1174837	60.69978
21:10:00	62.1	66	50.9	5	0	5128614	1621810	1621810.1	1177397	60.70923
21:11:00	60.5	65.2	52.9	5	0	3548134	1122018	1122018.5	1173373	60.69436
21:12:00	59	63.3	46.9	5	0	2511886	794328	794328.23	1172125	60.68974
21:13:00	60.7	65.5	54.9	5	0	3715352	1174898	1174897.6	1175553	60.70242
21:14:00	58.7	64	45.9	5	0	2344229	741310	741310.24	1162919	60.65549
21:15:00	60.1	64.5	50.9	5	0	3235937	1023293	1023293	1154750	60.62488
21:16:00	60.9	64.3	51.9	5	0	3890451	1230269	1230268.8	1162921	60.6555
21:17:00	59.3	64	48.9	5	0	2691535	851138	851138.04	1149207	60.60398
21:18:00	60.8	64.7	51.9	5	0	3801894	1202264	1202264.4	1141656	60.57535
21:19:00	66.6	78.3	46.9	5	0	14454398	4570882	4570881.9	1138673	60.56399
21:20:00	61.8	65.2	51.9	5	0	4786301	1513561	1513561.2	1078046	60.32637
21:21:00	60.1	64.4	47.9	5	0	3235937	1023293	1023293	1066059	60.27781
21:22:00	63.2	69.3	52.9	5	0	6606934	2089296	2089296.1	1069509	60.29184
21:23:00	58.3	63.2	47.9	5	0	2137962	676083	676082.98	1042483	60.18069
21:24:00	61.2	66.8	50.9	5	0	4168694	1318257	1318256.7	1047502	60.20155
21:25:00	60.8	68.4	45.9	5	0	3801894	1202264	1202264.4	1046035	60.19546
21:26:00	59.6	65.5	48.9	5	0	2884032	912011	912010.84	1040852	60.17389
21:27:00	61	66.8	50.9	5	0	3981072	1258925	1258925.4	1055980	60.23656
21:28:00	60.7	64.8	52.9	5	0	3715352	1174898	1174897.6	1046528	60.19751
21:29:00	61.1	65.7	49.9	5	0	4073803	1288250	1288249.6	1051599	60.2185
21:30:00	60	65.1	52.9	5	0	3162278	1000000	1000000	1039078	60.16648
21:31:00	60.9	65.3	50.9	5	0	3890451	1230269	1230268.8	1025661	60.11004
21:32:00	62.8	67.2	52.9	5	0	6025596	1905461	1905460.7	1006052	60.0262
21:33:00	61.6	64.6	54.9	5	0	4570882	1445440	1445439.8	989148.4	59.95261
21:34:00	61.3	65.3	53.9	5	0	4265795	1348963	1348962.9	983758	59.92888
21:35:00	60	64.3	48.9	5	0	3162278	1000000	1000000	968720	59.86198
21:36:00	59.5	65.1	50.9	5	0	2818383	891251	891250.94	963852.5	59.84011
21:37:00	61.3	64.8	50.9	5	0	4265795	1348963	1348962.9	966053.2	59.85001
21:38:00	63.7	72.4	47.9	5	0	7413102	2344229	2344228.8	957117.6	59.80965
21:39:00	59.7	64.3	47.9	5	0	2951209	933254	933254.3	926400.3	59.66799
21:40:00	61.3	65.5	49.9	5	0	4265795	1348963	1348962.9	923783.5	59.6557
21:41:00	60.5	67.1	50.9	5	0	3548134	1122018	1122018.5	914238.2	59.61059
21:42:00	61.8	67.2	57.9	5	0	4786301	1513561	1513561.2	916520	59.62142
21:43:00	58.6	63.7	50.9	5	0	2290868	724436	724435.96	909152.6	59.58637
21:44:00	57.1	63.9	45.9	5	0	1621810	512861	512861.38	905055.9	59.56675
21:45:00	60.9	68	51.9	5	0	3890451	1230269	1230268.8	902992.3	59.55684
21:46:00	60.7	65.5	44.9	5	0	3715352	1174898	1174897.6	890105.9	59.49442
21:47:00	58.9	65.5	44.9	5	0	2454709	776247	776247.12	884709.9	59.46801
21:48:00	60.9	64	46.9	5	0	3890451	1230269	1230268.8	890472.8	59.49621
21:49:00	57.2	62.9	44.9	5	0	1659587	524807	524807.46	880244.9	59.44604
21:50:00	59.9	65.2	44.9	5	0	3090295	977237	977237.22	885683.7	59.47279
21:51:00	61.4	66.5	48.9	5	0	4365158	1380384	1380384.3	878347	59.43666
21:52:00	60.6	65.2	50.9	5	0	3630781	1148154	1148153.6	865856.5	59.37446
21:53:00	58.1	63.2	49.9	5	0	2041738	645654	645654.23	865856.5	59.37446
21:54:00	60.5	66.4	53.9	5	0	3548134	1122018	1122018.5	864909.7	59.36971
21:55:00	57.1	63.6	46.9	5	0	1621810	512861	512861.38	867191.5	59.38115
21:56:00	59.9	65.3	48.9	5	0	3090295	977237	977237.22	874560.3	59.4179
21:57:00	57.7	63.5	48.9	5	0	1862087	588844	588843.66	864186.6	59.36608
21:58:00	60.8	63.6	47.9	5	0	3801894	1202264	1202264.4	861320.4	59.35165
21:59:00	57.9	64.9	46.9	5	0	1949845	616595	616595	854829.8	59.3188
22:00:00	61.7	71.2	48.9	5	0	4677351	1479108	1479108.4	860840.5	59.34923
22:01:00	58.4	64.9	48.9	10	10	6918310	6918310	691830.97	845561	59.27145
22:02:00	56.7	61.6	45.9	10	10	4677351	4677351	467735.14	848884.7	59.28849
22:03:00	55.8	63.6	43.9	10	10	3801894	3801894	380189.4	850679.8	59.29766
22:04:00	60.8	68	49.9	10	10	12022644	12022644	1202264.4	852891	59.30894
22:05:00	63.2	70.9	52.9	10	10	20892961	20892961	2089296.1	842667.3	59.25656
22:06:00	60	63.9	50.9	10	10	10000000	10000000	1000000	816008.7	59.11695
22:07:00	62.4	70.9	51.9	10	10	17378008	17378008	1737800.8	804612.5	59.05587
22:08:00	57.9	66.4	44.9	10	10	6165950	6165950	616595	786917.2	58.95929
22:09:00	61.5	66.8	51.9	10	10	14125375	14125375	1412537.5	786013	58.9543
22:10:00	61.4	68.3	50.9	10	10	13803843	13803843	1380384.3	778387.2	58.91196
22:11:00	60.2	64.3	50.9	10	10	10471285	10471285	1047128.5	761717.3	58.81794
22:12:00	60	64.4	47.9	10	10	10000000	10000000	1000000	757202.6	58.79212
22:13:00	56.2	62.8	45.9	10	10	4168694	4168694	416869.38	751296.8	58.75812
22:14:00	54	62.5	44.9	10	10	2511886	2511886	251188.64	760265.6	58.80965
22:15:00	61.8	70.2	51.9	10	10	15135612	15135612	1513561.2	769317.9	58.86106
22:16:00	56.1	64.4	43.9	10	10	4073803	4073803	407380.28	751710	58.7605
22:17:00	56	64.8	43.9	10	10	3981072	3981072	398107.17	760120.5	58.80882
22:18:00	60.1	66.4	49.9	10	10	10232930	10232930	1023293	775968.1	58.89844
22:19:00	59.7	64.6	49.9	10	10	9332543	9332543	933254.3	773429.3	58.88421
22:20:00	59	63.9	50.9	10	10	7943282	7943282	794328.23	761438.3	58.81635
22:21:00	60.9	68.1	50.9	10	10	12302688	12302688	1230268.8	749463.8	58.74751
22:22:00	56.7	64	45.9	10	10	4677351	4677351	467735.14	731789.7	58.64386
22:23:00	59.9	64	47.9	10	10	9772372	9772372	977237.22	731438.9	58.64178
22:24:00	60.9	65.5	48.9	10	10	12302688	12302688	1230268.8	726950.7	58.61505
22:25:00	59.5	64.3	51.9	10	10	8912509	8912509	891250.94	715605.2	58.54674
22:26:00	62.6	68	55.9	10	10	18197009	18197009	1819700.9	713106.2	58.53154
22:27:00	58.4	64.6	49.9	10	10	6918310	6918310	691830.97	694851.8	58.41892
22:28:00	61.7	67.8	51.9	10	10	14791084	14791084	1479108.4	698875.5	58.444
22:29:00	57.3	62.7	47.9	10	10	5370318	5370318	537031.8	687770.9	58.37444
22:30:00	52.9	60.7	45.9	10	10	1949845	1949845	194984.46	685455.5	58.35979
22:31:00	47.3	53.3	43.9	10	10	537032	537032	53703.18	713963.4	58.53676
22:32:00	59.5	65.2	46.9	10	10	8912509	8912509	891250.94	721231.3	58.58075
22:33:00	60.5	64	49.9	10	10	11220185	11220185	1122018.5	715327.7	58.54505

22:34:00	56.5	64	46.9	10	10	4466836	4466836	446683.59	714486	58.53994
22:35:00	58.5	64.4	50.9	10	10	7079458	7079458	707945.78	711631.7	58.52255
22:36:00	60.1	64	49.9	10	10	10232930	10232930	1023293	706622.3	58.49187
22:37:00	59.1	64.9	49.9	10	10	8128305	8128305	812830.52	696677	58.43031
22:38:00	57	62.7	47.9	10	10	5011872	5011872	501187.23	685832.9	58.36218
22:39:00	58.9	64.3	47.9	10	10	7762471	7762471	776247.12	683531.1	58.34758
22:40:00	58.9	64.5	47.9	10	10	7762471	7762471	776247.12	673626.4	58.28419
22:41:00	61	65.2	52.9	10	10	12589254	12589254	1258925.4	665722.2	58.23293
22:42:00	60.3	68.1	47.9	10	10	10715193	10715193	1071519.3	647843.6	58.1147
22:43:00	56.8	63.2	47.9	10	10	4786301	4786301	478630.09	631470.4	58.00353
22:44:00	55.9	64.3	43.9	10	10	3890451	3890451	389045.14	627584.4	57.97672
22:45:00	56.6	62.5	45.9	10	10	4570882	4570882	457088.19	627584.4	57.97672
22:46:00	59.3	64	46.9	10	10	8511380	8511380	851138.04	639547.9	58.05873
22:47:00	60.5	64.7	47.9	10	10	11220185	11220185	1122018.5	638909.4	58.05439
22:48:00	57.9	67.1	46.9	10	10	6165950	6165950	616595	626693.2	57.97055
22:49:00	59.3	65.7	50.9	10	10	8511380	8511380	851138.04	619666.4	57.92158
22:50:00	57.3	62.9	47.9	10	10	5370318	5370318	537031.8	632510.9	58.01068
22:51:00	58	62.9	44.9	10	10	6309573	6309573	630957.34	652523.7	58.14596
22:52:00	60.6	67.6	50.9	10	10	11481536	11481536	1148153.6	653275.8	58.15097
22:53:00	57.7	66.7	49.9	10	10	5888437	5888437	588843.66	638946.6	58.05465
22:54:00	61	67.6	47.9	10	10	12589254	12589254	1258925.4	636750.7	58.03969
22:55:00	59.8	67.2	46.9	10	10	9549926	9549926	954992.59	623931.6	57.95137
22:56:00	55.5	61.6	45.9	10	10	3548134	3548134	354813.39	613165.6	57.87578
22:57:00	56.2	62.8	48.9	10	10	4168694	4168694	416869.38	615047.6	57.88909
22:58:00	59.1	63.2	52.9	10	10	8128305	8128305	812830.52	614151.1	57.88275
22:59:00	59.9	66.4	46.9	10	10	9772372	9772372	977237.22	609151.6	57.84725
23:00:00	57.5	62	46.9	10	10	5623413	5623413	562341.33	607380.4	57.83461
23:01:00	59.5	64.9	51.9	10	10	8912509	8912509	891250.94	600649.5	57.78621
23:02:00	57.6	63.2	45.9	10	10	5754399	5754399	575439.94	600311.4	57.78377
23:03:00	57.1	60.9	49.9	10	10	5128614	5128614	512861.38	604267.9	57.8123
23:04:00	57.7	64.5	47.9	10	10	5888437	5888437	588843.66	602056.7	57.79637
23:05:00	56.9	62	48.9	10	10	4897788	4897788	489778.82	599190.4	57.77565
23:06:00	55	62.3	45.9	10	10	3162278	3162278	316227.77	597817.1	57.76568
23:07:00	58.3	63.5	47.9	10	10	6760830	6760830	676082.98	629858.7	57.99243
23:08:00	57.5	62.7	48.9	10	10	5623413	5623413	562341.33	625865.9	57.96481
23:09:00	59.8	64.8	51.9	10	10	9549926	9549926	954992.59	633160.2	58.01514
23:10:00	55.8	64.4	44.9	10	10	3801894	3801894	380189.4	625990.5	57.96568
23:11:00	58.9	65.6	49.9	10	10	7762471	7762471	776247.12	624351.3	57.95429
23:12:00	58.1	63.6	47.9	10	10	6456542	6456542	645654.23	616447.1	57.89896
23:13:00	59.8	64.8	49.9	10	10	9549926	9549926	954992.59	616954.2	57.90253
23:14:00	59	64.9	46.9	10	10	7943282	7943282	794328.23	626263.7	57.96757
23:15:00	56.6	62.8	47.9	10	10	4570882	4570882	457088.19	623067.6	57.94535
23:16:00	59.6	68.4	50.9	10	10	9120108	9120108	912010.84	625040.1	57.95908
23:17:00	61.3	67.1	50.9	10	10	13489629	13489629	1348962.9	616324	57.89809
23:18:00	59.4	67.1	48.9	10	10	8709636	8709636	870963.59	601286	57.79081
23:19:00	53.3	62.8	42.9	10	10	2137962	2137962	213796.21	600955.6	57.78842
23:20:00	48.8	54	41.9	10	10	758578	758578	75857.758	610035.3	57.85355
23:21:00	52.3	60.1	42.9	10	10	1698244	1698244	169824.37	619531.9	57.92064
23:22:00	56.5	63.9	44.9	10	10	4466836	4466836	446683.59	625860.5	57.96478
23:23:00	58.5	62.9	46.9	10	10	7079458	7079458	707945.78	633615.9	58.01826
23:24:00	57.4	64.4	46.9	10	10	5495409	5495409	549540.87	629435	57.98951
23:25:00	58.7	65.1	46.9	10	10	7413102	7413102	741310.24	629866.6	57.99249
23:26:00	58.6	65.2	50.9	10	10	7244360	7244360	724435.96	623030.3	57.94509
23:27:00	59.7	63.9	51.9	10	10	9332543	9332543	933254.3	614687.6	57.88654
23:28:00	59.1	66.8	44.9	10	10	8128305	8128305	812830.52	604526.6	57.81415
23:29:00	56	64.4	45.9	10	10	3981072	3981072	398107.17	608431.5	57.84212
23:30:00	62.8	73.5	42.9	10	10	19054607	19054607	1905460.7	611610.5	57.86475
23:31:00	56.9	62.7	45.9	10	10	4897788	4897788	489778.82	587648.4	57.69118
23:32:00	57.3	61.9	48.9	10	10	5370318	5370318	537031.8	581733.7	57.64724
23:33:00	60.3	68.3	50.9	10	10	10715193	10715193	1071519.3	579731	57.63226
23:34:00	54.4	62.4	45.9	10	10	2754229	2754229	275422.87	569849.5	57.5576
23:35:00	56.1	62.4	46.9	10	10	4073803	4073803	407380.28	569543.1	57.55527
23:36:00	56.3	65.1	43.9	10	10	4265795	4265795	426579.52	570549	57.56293
23:37:00	52.1	61.6	43.9	10	10	1621810	1621810	162181.01	573715.9	57.58697
23:38:00	55.6	60.8	46.9	10	10	3630781	3630781	363078.05	576046.2	57.60457
23:39:00	52.6	58.7	45.9	10	10	1819701	1819701	181970.09	572958.7	57.58123
23:40:00	54.8	62.4	43.9	10	10	3019952	3019952	301995.17	574112.3	57.58997
23:41:00	52.7	62	44.9	10	10	1862087	1862087	186208.71	570205.9	57.56032
23:42:00	49.5	59.8	42.9	10	10	891251	891251	89125.094	570505.3	57.5626
23:43:00	53.9	60.7	45.9	10	10	2454709	2454709	245470.89	571428.9	57.56962
23:44:00	55.9	64	45.9	10	10	3890451	3890451	389045.14	580576.5	57.63859
23:45:00	60.7	68	44.9	10	10	11748976	11748976	1174897.6	587331.3	57.68883
23:46:00	59.1	66	50.9	10	10	8128305	8128305	812830.52	574697.5	57.59439
23:47:00	55.9	63.5	46.9	10	10	3890451	3890451	389045.14	572680.8	57.57913
23:48:00	52.9	62.5	42.9	10	10	1949845	1949845	194984.46	575569.1	57.60097
23:49:00	62.1	68.2	47.9	10	10	16218101	16218101	1621810.1	575644.8	57.60155
23:50:00	62.4	74.3	47.9	10	10	17378008	17378008	1737800.8	554007.8	57.43516
23:51:00	58.3	63.5	48.9	10	10	6760830	6760830	676082.98	527625.8	57.22326
23:52:00	54.6	62.5	44.9	10	10	2884032	2884032	288403.15	519921.1	57.15937
23:53:00	56.6	62.7	46.9	10	10	4570882	4570882	457088.19	523277.3	57.18732
23:54:00	56.9	62.4	47.9	10	10	4897788	4897788	489778.82	521438.1	57.17203
23:55:00	54.9	60.3	45.9	10	10	3090295	3090295	309029.54	520719.9	57.16604
23:56:00	56.7	63.3	43.9	10	10	4677351	4677351	467735.14	535151	57.28476
23:57:00	55.6	63.5	45.9	10	10	3630781	3630781	363078.05	534145.1	57.27659
23:58:00	57.1	62	48.9	10	10	5128614	5128614	512861.38	535041.6	57.28388
23:59:00	59.4	67.2	48.9	10	10	8709636	8709636	870963.59	532978	57.26709
0:00:00	52	60.8	43.9	10	10	1584893	1584893	158489.32	521711.7	57.17431
0:01:00	59.4	64.8	49.9	10	10	8709636	8709636	870963.59	523354.2	57.18796
0:02:00	59.1	65.5	48.9	10	10	8128305	8128305	812830.52	513324	57.10392

0:03:00	55.8	63.1	46.9	10	10	3801894	3801894	380189.4	508130	57.05975	
0:04:00	56.2	63.2	48.9	10	10	4168694	4168694	416869.38	512554.4	57.0974	
0:05:00	56.1	61.5	44.9	10	10	4073803	4073803	407380.28	511657.9	57.0898	
0:06:00	63.5	72.4	45.9	10	10	22387211	22387211	2238721.1	508866.3	57.06604	
0:07:00	56.4	64.3	44.9	10	10	4365158	4365158	436515.83	475285.4	56.76955	
0:08:00	60	65.6	48.9	10	10	10000000	10000000	1000000	485065.1	56.858	
0:09:00	57.2	63.9	45.9	10	10	5248075	5248075	524807.46	471801.3	56.73759	
0:10:00	54.5	59.5	44.9	10	10	2818383	2818383	281838.29	465201.6	56.67641	
0:11:00	54.8	61.2	46.9	10	10	3019952	3019952	301995.17	472303.4	56.74221	
0:12:00	58.3	65.5	45.9	10	10	6760830	6760830	676082.98	472540.6	56.74439	
0:13:00	61.8	66.8	52.9	10	10	15135612	15135612	1513561.2	471086.6	56.73101	
0:14:00	57.8	62.4	49.9	10	10	6025596	6025596	602559.59	459407.7	56.62198	
0:15:00	57.6	64.3	49.9	10	10	5754399	5754399	575439.94	453456.3	56.56535	
0:16:00	55.9	61.9	43.9	10	10	3890451	3890451	389045.14	454142.2	56.57192	
0:17:00	56.5	62.7	44.9	10	10	4466836	4466836	446683.59	452691.4	56.55802	
0:18:00	59.3	63.3	46.9	10	10	8511380	8511380	851138.04	447297.1	56.50596	
0:19:00	58.8	64.2	48.9	10	10	7585776	7585776	758577.58	434897.3	56.38387	
0:20:00	58.1	63.6	47.9	10	10	6456542	6456542	645654.23	426638.1	56.3006	
0:21:00	57.4	64.1	46.9	10	10	5495409	5495409	549540.87	420795.9	56.24072	
0:22:00	59.6	66.3	49.9	10	10	9120108	9120108	912010.84	429089	56.32547	
0:23:00	56.6	60.8	47.9	10	10	4570882	4570882	457088.19	416035.9	56.19131	
0:24:00	57.6	63.6	47.9	10	10	5754399	5754399	575439.94	411521.3	56.14392	
0:25:00	55.2	64.6	46.9	10	10	3311311	3311311	331131.12	411089.6	56.13937	
0:26:00	53.5	59.2	45.9	10	10	2238721	2238721	223872.11	413733.8	56.16721	
0:27:00	55.1	63.6	44.9	10	10	3235937	3235937	323593.66	414093.7	56.17099	
0:28:00	60.2	67.9	45.9	10	10	10471285	10471285	1047128.5	411403.5	56.14268	
0:29:00	57.7	62.7	47.9	10	10	5888437	5888437	588843.66	401226.6	56.0339	
0:30:00	56.7	64.3	46.9	10	10	4677351	4677351	467735.14	398047.7	55.99935	
0:31:00	51.3	60.3	44.9	10	10	1348963	1348963	134896.29	394343.3	55.95874	
0:32:00	56.2	62.7	47.9	10	10	4168694	4168694	416869.38	395741.3	55.97411	
0:33:00	56.8	65.1	42.9	10	10	4786301	4786301	478630.09	398165.8	56.00064	
0:34:00	54.1	60.3	46.9	10	10	2570396	2570396	257039.58	393152.5	55.94561	
0:35:00	56.7	64	47.9	10	10	4677351	4677351	467735.14	402107.3	56.04342	
0:36:00	57.9	64.7	48.9	10	10	6165950	6165950	616595	401929.8	56.0415	
0:37:00	54.8	60.4	45.9	10	10	3019952	3019952	301995.17	393319.9	55.94746	
0:38:00	52.5	61.9	42.9	10	10	1778279	1778279	177827.94	399554.7	56.01576	
0:39:00	54	59.6	44.9	10	10	2511886	2511886	251188.64	398110.9	56.00004	
0:40:00	48.3	53.9	42.9	10	10	676083	676083	67608.298	396505.8	55.9825	
0:41:00	53.1	60.4	45.9	10	10	2041738	2041738	204173.79	396214.3	55.9793	
0:42:00	51.6	57.5	47.9	10	10	1445440	1445440	144543.98	399147.9	56.01134	
0:43:00	59	64.3	47.9	10	10	7943282	7943282	794328.23	398697	56.00643	
0:44:00	59	64.1	48.9	10	10	7943282	7943282	794328.23	387923.4	55.88746	
0:45:00	56.2	64.1	45.9	10	10	4168694	4168694	416869.38	375579.6	55.74702	
0:46:00	58.4	65.2	48.9	10	10	6918310	6918310	691830.97	370501.8	55.6879	
0:47:00	57.5	65.6	45.9	10	10	5623413	5623413	562341.33	361867.7	55.5855	
0:48:00	53	59.8	43.9	10	10	1995262	1995262	199526.23	354593.5	55.49731	
0:49:00	55.1	64	44.9	10	10	3235937	3235937	323593.66	354999.3	55.50227	
0:50:00	51.9	58.3	42.9	10	10	1548817	1548817	154881.66	353252.3	55.48085	
0:51:00	53.3	60.8	44.9	10	10	2137962	2137962	213796.21	357946.2	55.53818	
0:52:00	56.9	66.7	42.9	10	10	4897788	4897788	489778.82	356088.4	55.51558	
0:53:00	55.4	63.6	43.9	10	10	3467369	3467369	346736.85	349929.2	55.4398	
0:54:00	56.5	62.3	43.9	10	10	4466836	4466836	446683.59	347553.2	55.41021	
0:55:00	60.7	66.8	50.9	10	10	11748976	11748976	1174897.6	351376.5	55.45773	
0:56:00	56.1	64.6	43.9	10	10	4073803	4073803	407380.28	336178.7	55.2657	
0:57:00	56.2	61.5	45.9	10	10	4168694	4168694	416869.38	335581.2	55.25798	
0:58:00	55.9	62.3	45.9	10	10	3890451	3890451	389045.14	332451.5	55.21728	
0:59:00	52.9	60.8	43.9	10	10	1949845	1949845	194984.46	330664.7	55.19388	
1:00:00	54.1	60.3	46.9	10	10	2570396	2570396	257039.58	335962.7	55.26291	
1:01:00	54.3	62.4	44.9	10	10	2691535	2691535	269153.48	334854.5	55.24856	
1:02:00	57	64	47.9	10	10	5011872	5011872	501187.23	336016	55.2636	
1:03:00	58.1	66.8	43.9	10	10	6456542	6456542	645654.23	333999.4	55.23746	
1:04:00	55.6	62.1	46.9	10	10	3630781	3630781	363078.05	325819.8	55.12977	
1:05:00	53.8	60.4	44.9	10	10	2398833	2398833	239883.29	346798.7	55.40077	
1:06:00	53.5	62.8	45.9	10	10	2238721	2238721	223872.11	345048.9	55.37881	
1:07:00	60.1	67	49.9	10	10	10232930	10232930	1023293	346468.2	55.39663	
1:08:00	53.1	58.7	45.9	10	10	2041738	2041738	204173.79	332738.7	55.22103	
1:09:00	51.1	56.8	43.9	10	10	1288250	1288250	128824.96	332738.7	55.22103	
1:10:00	58.5	68.3	44.9	10	10	7079458	7079458	707945.78	338944.8	55.30129	
1:11:00	55	64.5	44.9	10	10	3162278	3162278	316227.77	333935.4	55.23662	
1:12:00	57.7	63.2	47.9	10	10	5888437	5888437	588843.66	336642.1	55.27168	
1:13:00	59.1	65.9	48.9	10	10	8128305	8128305	812830.52	327832.3	55.15652	
1:14:00	53.9	61.1	44.9	10	10	2454709	2454709	245470.89	314863	54.98122	
1:15:00	57.9	64.8	48.9	10	10	6165950	6165950	616595	312036.1	54.94205	
1:16:00	54.8	62.1	44.9	10	10	3019952	3019952	301995.17	303763.3	54.82535	
1:17:00	50.9	61.2	41.9	10	10	1230269	1230269	123026.88	302821.2	54.81186	
1:18:00	50.3	57.6	42.9	10	10	1071519	1071519	107151.93	303235.9	54.81781	
1:19:00	54.2	61.5	42.9	10	10	2630268	2630268	263026.8	302247.8	54.80363	
1:20:00	54.7	62.4	42.9	10	10	2951209	2951209	295120.92	298990.8	54.75658	
1:21:00	60.2	71.3	44.9	10	10	10471285	10471285	1047128.5	323710.1	55.10156	
1:22:00	51.1	60.4	44.9	10	10	1288250	1288250	128824.96	309290.8	54.90367	
1:23:00	52.7	60.3	44.9	10	10	1862087	1862087	186208.71	307683.1	54.88104	
1:24:00	57.4	61.9	50.9	10	10	5495409	5495409	549540.87	307410	54.87718	
1:25:00	56.9	61.1	49.9	10	10	4897788	4897788	489778.82	306414	54.86309	
1:26:00	53.9	60.8	43.9	10	10	2454709	2454709	245470.89	301897.2	54.79859	
1:27:00	52.1	60.7	45.9	10	10	1621810	1621810	162181.01	301369.3	54.79099	
1:28:00	56.4	63	48.9	10	10	4365158	4365158	436515.83	299670.6	54.76644	
1:29:00	56	61.6	47.9	10	10	3981072	3981072	398107.17	293522.1	54.67641	
1:30:00	53.9	62.3	44.9	10	10	2454709	2454709	245470.89	288757	54.60533	
1:31:00	53.4	60.3	43.9	10	10	2187762	2187762	218776.16	291301	54.64342	

1:32:00	57.5	62.9	47.9	10	10	5623413	5623413	562341.33	290119.9	54.62577
1:33:00	52.5	59.3	45.9	10	10	1778279	1778279	177827.94	282751.3	54.51405
1:34:00	59	64.8	47.9	10	10	7943282	7943282	794328.23	281838	54.49999
1:35:00	56.6	62.7	45.9	10	10	4570882	4570882	457088.19	271632	54.33981
1:36:00	50	58.4	42.9	10	10	1000000	1000000	100000	269661.2	54.30819
1:37:00	58.3	65.9	41.9	10	10	6760830	6760830	676082.98	269700.1	54.30881
1:38:00	49.6	57.9	42.9	10	10	912011	912011	91201.084	264624.3	54.2263
1:39:00	51.9	59.5	43.9	10	10	1548817	1548817	154881.66	268137.5	54.28358
1:40:00	47	52.9	41.9	10	10	501187	501187	50118.723	271892.6	54.34397
1:41:00	55.8	63.3	43.9	10	10	3801894	3801894	380189.4	280871.4	54.48508
1:42:00	50.7	59.1	42.9	10	10	1174898	1174898	117489.76	278818.9	54.45322
1:43:00	51.7	58.8	42.9	10	10	1479108	1479108	147910.84	277755.8	54.43663
1:44:00	47.3	54.3	40.9	10	10	537032	537032	53703.18	280561.1	54.48027
1:45:00	50.5	56.7	42.9	10	10	1122018	1122018	112201.85	284699.3	54.54386
1:46:00	52.4	61	43.9	10	10	1737801	1737801	173780.08	284153.1	54.53552
1:47:00	51	61.2	42.9	10	10	1258925	1258925	125892.54	282357.9	54.508
1:48:00	53.5	61.4	42.9	10	10	2238721	2238721	223872.11	284257.8	54.53712
1:49:00	53.4	61.2	42.9	10	10	2187762	2187762	218776.16	282354	54.50794
1:50:00	56.4	64	44.9	10	10	4365158	4365158	436515.83	279943.3	54.4707
1:51:00	50.1	57.1	43.9	10	10	1023293	1023293	102329.3	279303.1	54.46076
1:52:00	50.8	60.4	42.9	10	10	1202264	1202264	120226.44	282868.1	54.51584
1:53:00	53.1	61.9	41.9	10	10	2041738	2041738	204173.79	285454.7	54.55537
1:54:00	58.3	63.9	49.9	10	10	6760830	6760830	676082.98	283643.5	54.52773
1:55:00	54.2	63.1	43.9	10	10	2630268	2630268	263026.8	274956.8	54.39264
1:56:00	55.7	62.4	46.9	10	10	3715352	3715352	371535.23	271752.9	54.34174
1:57:00	53.6	64.1	42.9	10	10	2290868	2290868	229086.77	268886.1	54.29568
1:58:00	54.5	62.3	45.9	10	10	2818383	2818383	281838.29	280268.2	54.47574
1:59:00	57.1	62.8	45.9	10	10	5128614	5128614	512861.38	278036.1	54.44101
2:00:00	52.8	61.5	44.9	10	10	1905461	1905461	190546.07	271492.1	54.33757
2:01:00	55.3	61.9	44.9	10	10	3388442	3388442	338844.16	270957.9	54.32902
2:02:00	55.8	65.7	43.9	10	10	3801894	3801894	380189.4	265929.7	54.24767
2:03:00	51.9	58.3	42.9	10	10	1548817	1548817	154881.66	272236.2	54.34946
2:04:00	62.1	72.7	46.9	10	10	16218101	16218101	1621810.1	273301.1	54.36641
2:05:00	51.3	55.7	43.9	10	10	1348963	1348963	134896.29	247506.4	53.93586
2:06:00	54.9	63.1	42.9	10	10	3090295	3090295	309029.54	245822.9	53.90622
2:07:00	53	60.4	43.9	10	10	1995262	1995262	199526.23	245158.3	53.89447
2:08:00	53.1	62.3	42.9	10	10	2041738	2041738	204173.79	244474.3	53.88233
2:09:00	57	62.7	42.9	10	10	5011872	5011872	501187.23	248181.1	53.94769
2:10:00	56.1	62.7	48.9	10	10	4073803	4073803	407380.28	243646.1	53.86759
2:11:00	56.8	65.9	44.9	10	10	4786301	4786301	478630.09	238150.2	53.76851
2:12:00	47.8	53.9	41.9	10	10	602560	602560	60255.959	233498.4	53.68284
2:13:00	45.4	51.7	40.9	10	10	346737	346737	34673.685	236980	53.74712
2:14:00	48.8	53.6	42.9	10	10	758578	758578	75857.758	239298.5	53.7894
2:15:00	50.8	56.3	41.9	10	10	1202264	1202264	120226.44	240800.2	53.81657
2:16:00	53.9	60.9	41.9	10	10	2454709	2454709	245470.89	240425.1	53.8098
2:17:00	51.7	59.1	41.9	10	10	1479108	1479108	147910.84	241852.8	53.83551
2:18:00	46.8	53.1	40.9	10	10	478630	478630	47863.009	242284	53.84325
2:19:00	48.3	55.7	40.9	10	10	676083	676083	67608.298	241886	53.83611
2:20:00	62.5	73.3	42.9	10	10	17782794	17782794	1778279.4	241197.6	53.82373
2:21:00	52.6	60.9	42.9	10	10	1819701	1819701	181970.09	212795.1	53.27962
2:22:00	45.1	52.8	40.9	10	10	323594	323594	32359.366	214459.6	53.31346
2:23:00	52.3	62.1	43.9	10	10	1698244	1698244	169824.37	224436.2	53.51093
2:24:00	56.9	64	45.9	10	10	4897788	4897788	489778.82	223564	53.49402
2:25:00	53.4	61.9	43.9	10	10	2187762	2187762	218776.16	220319.7	53.43053
2:26:00	53.3	59.5	43.9	10	10	2137962	2137962	213796.21	219082.5	53.40608
2:27:00	47.8	52.4	40.9	10	10	602560	602560	60255.959	216071.1	53.34597
2:28:00	48.3	58	41.9	10	10	676083	676083	67608.298	215921.6	53.34296
2:29:00	50.5	56.8	42.9	10	10	1122018	1122018	112201.85	215822.5	53.34097
2:30:00	56	62.5	45.9	10	10	3981072	3981072	398107.17	217859.5	53.38176
2:31:00	51.7	59	41.9	10	10	1479108	1479108	147910.84	212610.6	53.27585
2:32:00	50.8	58.7	41.9	10	10	1202264	1202264	120226.44	214735.8	53.31905
2:33:00	50.9	58.2	41.9	10	10	1230269	1230269	123026.88	215498	53.33443
2:34:00	52.6	61.2	44.9	10	10	1819701	1819701	181970.09	217265.7	53.36991
2:35:00	55.3	61.9	43.9	10	10	3388442	3388442	338844.16	231287.8	53.64153
2:36:00	50.1	60	40.9	10	10	1023293	1023293	102329.3	229547.4	53.60872
2:37:00	55.7	62.5	41.9	10	10	3715352	3715352	371535.23	229587.1	53.60948
2:38:00	54.8	62.4	46.9	10	10	3019952	3019952	301995.17	227392.9	53.56777
2:39:00	55.8	61.2	48.9	10	10	3801894	3801894	380189.4	229149.3	53.60119
2:40:00	57.7	64.8	46.9	10	10	5888437	5888437	588843.66	237328.9	53.75351
2:41:00	54.1	63	41.9	10	10	2570396	2570396	257039.58	230618.3	53.62894
2:42:00	47.3	53.6	41.9	10	10	537032	537032	53703.18	227889.8	53.57725
2:43:00	55	64.3	44.9	10	10	3162278	3162278	316227.77	228381	53.5866
2:44:00	54.8	60.9	43.9	10	10	3019952	3019952	301995.17	226214	53.54519
2:45:00	49	55.9	41.9	10	10	794328	794328	79432.823	223327.8	53.48943
2:46:00	48.2	54.3	41.9	10	10	660693	660693	66069.345	227522.8	53.57025
2:47:00	53.8	60.3	43.9	10	10	2398833	2398833	239883.29	235580.7	53.7214
2:48:00	50.4	57.5	42.9	10	10	1096478	1096478	109647.82	234832.3	53.70758
2:49:00	48.7	54.3	42.9	10	10	741310	741310	74131.024	233859.7	53.68955
2:50:00	56	65.1	46.9	10	10	3981072	3981072	398107.17	236187.4	53.73257
2:51:00	55	65	42.9	10	10	3162278	3162278	316227.77	234945.5	53.70967
2:52:00	54.4	61.2	43.9	10	10	2754229	2754229	275422.87	243860.7	53.87142
2:53:00	49.8	58.2	43.9	10	10	954993	954993	95499.259	243001.5	53.85609
2:54:00	51.9	59.9	42.9	10	10	1548817	1548817	154881.66	250360.4	53.98566
2:55:00	48.5	52	42.9	10	10	707946	707946	70794.578	248356.9	53.95076
2:56:00	53	61.5	43.9	10	10	1995262	1995262	199526.23	247974.7	53.94407
2:57:00	59.6	64.9	48.9	10	10	9120108	9120108	912010.84	250168.1	53.98232
2:58:00	51.7	60.3	41.9	10	10	1479108	1479108	147910.84	243515.6	53.86527
2:59:00	50.8	56.4	41.9	10	10	1202264	1202264	120226.44	243247.6	53.86048
3:00:00	52	60.1	44.9	10	10	1584893	1584893	158489.32	243342	53.86217

3:01:00	45.7	50.8	40.9	10	10	371535	371535	37153.523	245971	53.90884
3:02:00	58.8	65.9	42.9	10	10	7585776	7585776	758577.58	252461.4	54.02195
3:03:00	53.4	61.1	42.9	10	10	2187762	2187762	218776.16	247093.7	53.92862
3:04:00	48.7	54.9	42.9	10	10	741310	741310	74131.024	244406.5	53.88113
3:05:00	45.3	51.4	41.9	10	10	338844	338844	33884.416	246001.4	53.90938
3:06:00	54.3	60.7	42.9	10	10	2691535	2691535	269153.48	248839.6	53.95919
3:07:00	52	59.3	42.9	10	10	1584893	1584893	158489.32	246181.1	53.91255
3:08:00	56.3	63.5	45.9	10	10	4265795	4265795	426579.52	243998.7	53.87387
3:09:00	53.6	60.8	43.9	10	10	2290868	2290868	229086.77	239137.3	53.78647
3:10:00	48.9	56.8	40.9	10	10	776247	776247	77624.712	235883.9	53.72698
3:11:00	53	61.4	40.9	10	10	1995262	1995262	199526.23	242753.1	53.85165
3:12:00	54.3	60.6	45.9	10	10	2691535	2691535	269153.48	244946.6	53.89071
3:13:00	52.4	58.7	40.9	10	10	1737801	1737801	173780.08	245158	53.89446
3:14:00	52.2	59.2	42.9	10	10	1659587	1659587	165958.69	245437.4	53.89941
3:15:00	49.9	56.4	42.9	10	10	977237	977237	97723.722	247368.7	53.93345
3:16:00	55.2	64	43.9	10	10	3311311	3311311	331131.12	256500.9	54.09089
3:17:00	52.4	59.8	42.9	10	10	1737801	1737801	173780.08	254545.3	54.05765
3:18:00	43.8	50.7	39.9	10	10	239883	239883	23988.329	261463.1	54.1741
3:19:00	44.2	51.1	39.9	10	10	263027	263027	26302.68	268858.8	54.29524
3:20:00	48.7	58.2	40.9	10	10	741310	741310	74131.024	269424.7	54.30437
3:21:00	54.5	61.4	43.9	10	10	2818383	2818383	281838.29	271835.5	54.34306
3:22:00	58	66.2	42.9	10	10	6309573	6309573	630957.34	268291.2	54.28606
3:23:00	50.7	58.3	42.9	10	10	1174898	1174898	117489.76	261100.7	54.16808
3:24:00	54.7	62.8	44.9	10	10	2951209	2951209	295120.92	266587.3	54.25839
3:25:00	51.6	60.4	41.9	10	10	1445440	1445440	144543.98	274606	54.3871
3:26:00	45.2	51.3	40.9	10	10	331131	331131	33113.112	281787.6	54.49922
3:27:00	47.1	54.7	40.9	10	10	512861	512861	51286.138	288853.9	54.60678
3:28:00	47.9	53.6	41.9	10	10	616595	616595	61659.5	293269.6	54.67267
3:29:00	53.7	61.7	42.9	10	10	2344229	2344229	234422.88	300595	54.77982
3:30:00	49.2	54.4	41.9	10	10	831764	831764	83176.377	300090.9	54.77253
3:31:00	54.4	62.1	43.9	10	10	2754229	2754229	275422.87	302988.6	54.81426
3:32:00	52.2	58	43.9	10	10	1659587	1659587	165958.69	299816.8	54.76856
3:33:00	53.6	61.5	41.9	10	10	2290868	2290868	229086.77	298964.4	54.75619
3:34:00	60.1	69.6	42.9	10	10	10232930	10232930	1023293	304305.3	54.8331
3:35:00	53.7	60.3	46.9	10	10	2344229	2344229	234422.88	297293.1	54.73185
3:36:00	50.2	60.4	43.9	10	10	1047129	1047129	104712.85	294202.3	54.68646
3:37:00	53.8	63.1	44.9	10	10	2398833	2398833	239883.29	294123.8	54.6853
3:38:00	56.1	63	47.9	10	10	4073803	4073803	407380.28	297921.3	54.74102
3:39:00	59.4	69.6	42.9	10	10	8709636	8709636	870963.59	298079.5	54.74332
3:40:00	52.7	60.2	41.9	10	10	1862087	1862087	186208.71	298079.5	54.74332
3:41:00	49.7	57.2	42.9	10	10	933254	933254	93325.43	307049.9	54.87209
3:42:00	49.2	58.4	41.9	10	10	831764	831764	83176.377	316762.5	55.00734
3:43:00	52.7	59.7	43.9	10	10	1862087	1862087	186208.71	323353.4	55.09677
3:44:00	51.1	59.5	41.9	10	10	1288250	1288250	128824.96	328045.6	55.15934
3:45:00	55.2	62	42.9	10	10	3311311	3311311	331131.12	332235	55.21445
3:46:00	57.4	64.4	44.9	10	10	5495409	5495409	549540.87	338515.2	55.29578
3:47:00	52.9	62.7	41.9	10	10	1949845	1949845	194984.46	334162.9	55.23958
3:48:00	47.1	53.9	41.9	10	10	512861	512861	51286.138	339076.1	55.30297
3:49:00	53.3	59.5	43.9	10	10	2137962	2137962	213796.21	345839.5	55.38875
3:50:00	55.1	61.5	44.9	10	10	3235937	3235937	323593.66	346560.2	55.39779
3:51:00	59.3	64.3	52.9	10	10	8511380	8511380	851138.04	347956.7	55.41525
3:52:00	53.5	61.9	45.9	10	10	2238721	2238721	223872.11	338577.8	55.29658
3:53:00	57.3	63.5	48.9	10	10	5370318	5370318	537031.8	345362.5	55.38275
3:54:00	45.4	51.6	40.9	10	10	346737	346737	34673.685	350597.6	55.44809
3:55:00	46.8	52.3	41.9	10	10	478630	478630	47863.009	358372.9	55.54335
3:56:00	55.2	62	43.9	10	10	3311311	3311311	331131.12	362272.4	55.59035
3:57:00	57.1	65.1	46.9	10	10	5128614	5128614	512861.38	359584	55.558
3:58:00	51.2	57.7	42.9	10	10	1318257	1318257	131825.67	353739.3	55.48683
3:59:00	51	60	41.9	10	10	1258925	1258925	125892.54	373013.1	55.71724
4:00:00	55	63.5	42.9	10	10	3162278	3162278	316227.77	381926.4	55.8198
4:01:00	56.3	63.3	45.9	10	10	4265795	4265795	426579.52	387416.8	55.88178
4:02:00	56.4	63.1	48.9	10	10	4365158	4365158	436515.83	393546	55.94995
4:03:00	47.6	53.6	42.9	10	10	575440	575440	57543.994	388015.9	55.8885
4:04:00	52.3	58.7	42.9	10	10	1698244	1698244	169824.37	393692	55.95157
4:05:00	53.1	61.2	41.9	10	10	2041738	2041738	204173.79	399608.4	56.01635
4:06:00	50.4	58.7	40.9	10	10	1096478	1096478	109647.82	430234.4	56.33705
4:07:00	44.4	51.4	40.9	10	10	275423	275423	27542.287	429700.7	56.33166
4:08:00	51.3	60.6	40.9	10	10	1348963	1348963	134896.29	442480.5	56.45894
4:09:00	45.3	50.9	40.9	10	10	338844	338844	33884.416	448395.2	56.51661
4:10:00	56.9	63.3	43.9	10	10	4897788	4897788	489778.82	486011.6	56.86647
4:11:00	55.2	61.2	42.9	10	10	3311311	3311311	331131.12	483119.1	56.84054
4:12:00	54.5	62	43.9	10	10	2818383	2818383	281838.29	484875.5	56.8563
4:13:00	52.8	60.3	42.9	10	10	1905461	1905461	190546.07	491708.7	56.91708
4:14:00	54.5	61.1	44.9	10	10	2818383	2818383	281838.29	511539.3	57.08879
4:15:00	58.1	66.7	47.9	10	10	6456542	6456542	645654.23	518641.1	57.14867
4:16:00	53.3	59	41.9	10	10	2137962	2137962	213796.21	513150.7	57.10245
4:17:00	57.7	64	42.9	10	10	5888437	5888437	588843.66	517564.6	57.13965
4:18:00	56.7	65.1	46.9	10	10	4677351	4677351	467735.14	513664.1	57.10679
4:19:00	47.8	52.4	40.9	10	10	602560	602560	60255.959	514615.3	57.11483
4:20:00	53.4	59.6	41.9	10	10	2187762	2187762	218776.16	525410.1	57.20498
4:21:00	48.4	55.1	40.9	10	10	691831	691831	69183.097	536279.9	57.29392
4:22:00	53	61.9	43.9	10	10	1995262	1995262	199526.23	545887.8	57.37103
4:23:00	56.5	62.8	46.9	10	10	4466836	4466836	446683.59	557078.4	57.45916
4:24:00	58.9	69.1	43.9	10	10	7762471	7762471	776247.12	556743.3	57.45655
4:25:00	57.6	65.9	45.9	10	10	5754399	5754399	575439.94	566288.6	57.53038
4:26:00	56.6	65.3	48.9	10	10	4570882	4570882	457088.19	569936.7	57.55827
4:27:00	55	64.9	49.9	10	10	3162278	3162278	316227.77	574392.5	57.59209
4:28:00	57	62.7	46.9	10	10	5011872	5011872	501187.23	600156.8	57.78265
4:29:00	53.1	61.2	43.9	10	10	2041738	2041738	204173.79	599599.3	57.77861

4:30:00	54.1	61.6	43.9	10	10	2570396	2570396	257039.58	607464.4	57.83521
4:31:00	49.3	56	42.9	10	10	851138	851138	85113.804	615823.4	57.89456
4:32:00	50.6	57.2	41.9	10	10	1148154	1148154	114815.36	637947.1	58.04785
4:33:00	57.4	63.5	42.9	10	10	5495409	5495409	549540.87	646794.5	58.10766
4:34:00	57.8	63.6	48.9	10	10	6025596	6025596	602559.59	652835.6	58.14804
4:35:00	46.9	52	40.9	10	10	489779	489779	48977.882	658709.5	58.18694
4:36:00	50	61.4	41.9	10	10	1000000	1000000	100000	668904.8	58.25364
4:37:00	56.7	63.9	44.9	10	10	4677351	4677351	467735.14	678506.1	58.31554
4:38:00	56.2	62.4	43.9	10	10	4168694	4168694	416869.38	679869.6	58.32426
4:39:00	59.4	67.5	43.9	10	10	8709636	8709636	870963.59	679711.4	58.32325
4:40:00	58.6	66.4	45.9	10	10	7244360	7244360	724435.96	692855.1	58.40642
4:41:00	58.3	66	44.9	10	10	6760830	6760830	676082.98	699055.8	58.44512
4:42:00	56.8	63.3	43.9	10	10	4786301	4786301	478630.09	708769.9	58.50505
4:43:00	56.7	63.5	46.9	10	10	4677351	4677351	467735.14	715308.8	58.54494
4:44:00	55.8	63.3	47.9	10	10	3801894	3801894	380189.4	728984	58.62718
4:45:00	58.5	64.7	44.9	10	10	7079458	7079458	707945.78	740506.2	58.69529
4:46:00	54.6	60.4	42.9	10	10	2884032	2884032	288403.15	741945.9	58.70372
4:47:00	56.9	64.4	45.9	10	10	4897788	4897788	489778.82	764169.3	58.8319
4:48:00	56.6	62.8	42.9	10	10	4570882	4570882	457088.19	765820.4	58.84127
4:49:00	54.1	60.1	43.9	10	10	2570396	2570396	257039.58	775654.4	58.89668
4:50:00	56.1	61.1	45.9	10	10	4073803	4073803	407380.28	781647	58.93011
4:51:00	54.6	62.3	42.9	10	10	2884032	2884032	288403.15	784900	58.94814
4:52:00	58	65.7	45.9	10	10	6309573	6309573	630957.34	811128.1	59.09089
4:53:00	59.3	64.1	50.9	10	10	8511380	8511380	851138.04	815128.2	59.11226
4:54:00	57	64.4	44.9	10	10	5011872	5011872	501187.23	808560.7	59.07713
4:55:00	54.5	61.9	44.9	10	10	2818383	2818383	281838.29	829845.6	59.18997
4:56:00	52.3	61.1	42.9	10	10	1698244	1698244	169824.37	841064.8	59.24829
4:57:00	52.1	57.8	44.9	10	10	1621810	1621810	162181.01	853788.6	59.3135
4:58:00	61.1	69.6	44.9	10	10	12882496	12882496	1288249.6	879389.7	59.44181
4:59:00	58.2	65.6	45.9	10	10	6606934	6606934	660693.45	867509.5	59.38274
5:00:00	58.1	65.9	46.9	10	10	6456542	6456542	645654.23	867766	59.38403
5:01:00	59	64.9	47.9	10	10	7943282	7943282	794328.23	882818.7	59.45872
5:02:00	50.2	60	42.9	10	10	1047129	1047129	104712.85	887438.6	59.48138
5:03:00	56	65.1	43.9	10	10	3981072	3981072	398107.17	894852.4	59.51751
5:04:00	57.2	64	46.9	10	10	5248075	5248075	524807.46	902402.9	59.554
5:05:00	63.1	71.8	51.9	10	10	20417379	20417379	2041737.9	921960.1	59.64712
5:06:00	48.9	57.2	42.9	10	10	776247	776247	77624.712	904218.5	59.56273
5:07:00	59	63.9	45.9	10	10	7943282	7943282	794328.23	916787.4	59.62269
5:08:00	56.9	64	48.9	10	10	4897788	4897788	489778.82	930578.8	59.68753
5:09:00	63.6	69.9	48.9	10	10	22908677	22908677	2290867.7	941997.5	59.7405
5:10:00	55	61.6	42.9	10	10	3162278	3162278	316227.77	919016.5	59.63323
5:11:00	56.4	63.2	45.9	10	10	4365158	4365158	436515.83	925014.1	59.66148
5:12:00	58.4	67.4	47.9	10	10	6918310	6918310	691830.97	946702.2	59.76213
5:13:00	61.4	67.9	50.9	10	10	13803843	13803843	1380384.3	943524.8	59.74753
5:14:00	58.5	67.3	43.9	10	10	7079458	7079458	707945.78	938377	59.72377
5:15:00	55	62.4	43.9	10	10	3162278	3162278	316227.77	931971.2	59.69402
5:16:00	56.8	63.2	46.9	10	10	4786301	4786301	478630.09	936743.4	59.71621
5:17:00	55.5	64.4	43.9	10	10	3548134	3548134	354813.39	953418	59.79283
5:18:00	57.2	64.5	43.9	10	10	5248075	5248075	524807.46	956251.2	59.80572
5:19:00	58.5	64.6	48.9	10	10	7079458	7079458	707945.78	968486.5	59.86094
5:20:00	59.4	63.4	50.9	10	10	8709636	8709636	870963.59	977191.9	59.8998
5:21:00	58.1	64.4	47.9	10	10	6456542	6456542	645654.23	980128	59.91283
5:22:00	59.4	64.6	48.9	10	10	8709636	8709636	870963.59	981722.3	59.91989
5:23:00	56.3	61.9	47.9	10	10	4265795	4265795	426579.52	979849.2	59.91159
5:24:00	61.3	67.7	48.9	10	10	13489629	13489629	1348962.9	982553.6	59.92356
5:25:00	59	65.4	47.9	10	10	7943282	7943282	794328.23	978771.2	59.90681
5:26:00	58.6	64.8	50.9	10	10	7244360	7244360	724435.96	976293.3	59.8958
5:27:00	62.7	71.1	48.9	10	10	18620871	18620871	1862087.1	990634.2	59.95913
5:28:00	56.7	63.6	45.9	10	10	4677351	4677351	467735.14	978299.7	59.90472
5:29:00	58.3	64.6	48.9	10	10	6760830	6760830	676082.98	995730.2	59.98142
5:30:00	58.8	65.9	47.9	10	10	7585776	7585776	758577.58	992625.1	59.96785
5:31:00	61.5	66.7	49.9	10	10	14125375	14125375	1412537.5	1002989	60.01296
5:32:00	58.1	64.5	48.9	10	10	6456542	6456542	645654.23	986721.5	59.94195
5:33:00	59.6	63.9	52.9	10	10	9120108	9120108	912010.84	996942.7	59.9867
5:34:00	59.8	65.6	48.9	10	10	9549926	9549926	954992.59	1025580	60.1097
5:35:00	58.2	64.7	45.9	10	10	6606934	6606934	660693.45	1029245	60.12519
5:36:00	58.3	64.3	46.9	10	10	6760830	6760830	676082.98	1039216	60.16706
5:37:00	57.4	64	47.9	10	10	5495409	5495409	549540.87	1048452	60.20549
5:38:00	56.1	63.4	45.9	10	10	4073803	4073803	407380.28	1055581	60.23491
5:39:00	62.2	69.1	45.9	10	10	16595869	16595869	1659586.9	1061434	60.25893
5:40:00	60.4	71.3	48.9	10	10	10964782	10964782	1096478.2	1053356	60.22575
5:41:00	61	70.8	49.9	10	10	12589254	12589254	1258925.4	1052136	60.22072
5:42:00	59.4	64.8	47.9	10	10	8709636	8709636	870963.59	1078127	60.3267
5:43:00	61.1	66.8	51.9	10	10	12882496	12882496	1288249.6	1077158	60.32279
5:44:00	60.3	64.5	50.9	10	10	10715193	10715193	1071519.3	1066203	60.2784
5:45:00	59	65	50.9	10	10	7943282	7943282	794328.23	1074759	60.31311
5:46:00	62.1	66.7	53.9	10	10	16218101	16218101	1621810.1	1094018	60.39024
5:47:00	57.7	63.6	46.9	10	10	5888437	5888437	588843.66	1100242	60.41488
5:48:00	60.2	65	46.9	10	10	10471285	10471285	1047128.5	1108287	60.44652
5:49:00	57.9	65.3	47.9	10	10	6165950	6165950	616595	1107122	60.44195
5:50:00	57.8	63.7	48.9	10	10	6025596	6025596	602559.59	1103955	60.42951
5:51:00	62.7	66.3	50.9	10	10	18620871	18620871	1862087.1	1106850	60.44089
5:52:00	59.4	65.4	50.9	10	10	8709636	8709636	870963.59	1087346	60.36368
5:53:00	56.6	62	47.9	10	10	4570882	4570882	457088.19	1105327	60.43491
5:54:00	62.5	68.4	47.9	10	10	17782794	17782794	1778279.4	1115983	60.47658
5:55:00	59.8	65.5	46.9	10	10	9549926	9549926	954992.59	1098988	60.40993
5:56:00	59.7	64.7	46.9	10	10	9332543	9332543	933254.3	1095146	60.39472
5:57:00	62.3	68	46.9	10	10	16982437	16982437	1698243.7	1097450	60.40385
5:58:00	57.6	64.3	45.9	10	10	5754399	5754399	575439.94	1094960	60.39398

5:59:00	58.3	63.2	51.9	10	10	6760830	6760830	676082.98	1103228	60.42665	
6:00:00	61.9	69.4	49.9	10	10	15488166	15488166	1548816.6	1108247	60.44637	
6:01:00	60.3	66.7	46.9	10	10	10715193	10715193	1071519.3	1102938	60.42551	
6:02:00	57.4	62.5	48.9	10	10	5495409	5495409	549540.87	1108622	60.44783	
6:03:00	59.3	65	46.9	10	10	8511380	8511380	851138.04	1117737	60.4834	
6:04:00	62.3	67.9	51.9	10	10	16982437	16982437	1698243.7	1126034	60.51552	
6:05:00	59.9	65.6	49.9	10	10	9772372	9772372	977237.22	1114397	60.4704	
6:06:00	59.2	65.5	51.9	10	10	8317638	8317638	831763.77	1120592	60.49448	
6:07:00	62.1	68.3	54.9	10	10	16218101	16218101	1621810.1	1127234	60.52014	
6:08:00	60.7	67.6	50.9	10	10	11748976	11748976	1174897.6	1114720	60.47166	
6:09:00	59.6	65.1	45.9	10	10	9120108	9120108	912010.84	1108076	60.44569	
6:10:00	58.3	65.1	47.9	10	10	6760830	6760830	676082.98	1118102	60.48481	
6:11:00	62.4	69.4	51.9	10	10	17378008	17378008	1737800.8	1132647	60.54095	
6:12:00	57	68	47.9	10	10	5011872	5011872	501187.23	1118538	60.48651	
6:13:00	60.3	67.7	46.9	10	10	10715193	10715193	1071519.3	1128459	60.52486	
6:14:00	55.1	62.4	46.9	10	10	3235937	3235937	323593.66	1130639	60.53324	
6:15:00	57.8	64.8	46.9	10	10	6025596	6025596	602559.59	1142300	60.5778	
6:16:00	61.7	70.4	49.9	10	10	14791084	14791084	1479108.4	1150958	60.61059	
6:17:00	57.2	64.3	46.9	10	10	5248075	5248075	524807.46	1144165	60.58489	
6:18:00	61	67.2	51.9	10	10	12589254	12589254	1258925.4	1152473	60.61631	
6:19:00	60.9	68.9	47.9	10	10	12302688	12302688	1230268.8	1157304	60.63448	
6:20:00	60.2	66	47.9	10	10	10471285	10471285	1047128.5	1157782	60.63627	
6:21:00	58.7	65.2	45.9	10	10	7413102	7413102	741310.24	1162301	60.65319	
6:22:00	58.8	64.6	49.9	10	10	7585776	7585776	758577.58	1180980	60.72243	
6:23:00	57.7	63	47.9	10	10	5888437	5888437	588843.66	1195368	60.77501	
6:24:00	60.5	66.8	47.9	10	10	11220185	11220185	1122018.5	1213213	60.83937	
6:25:00	58.1	63.6	51.9	10	10	6456542	6456542	645654.23	1207450	60.81869	
6:26:00	62	69.2	49.9	10	10	15848932	15848932	1584893.2	1218660	60.85883	
6:27:00	60.5	68.3	49.9	10	10	11220185	11220185	1122018.5	1215252	60.84666	
6:28:00	61.8	68	46.9	10	10	15135612	15135612	1513561.2	1210737	60.8305	
6:29:00	56.9	64.1	43.9	10	10	4897788	4897788	489778.82	1199058	60.7884	
6:30:00	61.4	66.9	52.9	10	10	13803843	13803843	1380384.3	1212866	60.83813	
6:31:00	56.4	64.9	48.9	10	10	4365158	4365158	436515.83	1216275	60.85032	
6:32:00	61	66	50.9	10	10	12589254	12589254	1258925.4	1221643	60.86944	
6:33:00	64.2	73.6	53.9	10	10	26302680	26302680	2630268	1215177	60.84639	
6:34:00	60.7	68	50.9	10	10	11748976	11748976	1174897.6	1190475	60.7572	
6:35:00	61	68.1	48.9	10	10	12589254	12589254	1258925.4	1211805	60.83433	
6:36:00	60.9	66.5	48.9	10	10	12302688	12302688	1230268.8	1202091	60.79937	
6:37:00	59.9	67.3	48.9	10	10	9772372	9772372	977237.22	1213344	60.83984	
6:38:00	58.8	63.6	49.9	10	10	7585776	7585776	758577.58	1222283	60.87172	
6:39:00	60.7	65.2	51.9	10	10	11748976	11748976	1174897.6	1236055	60.92038	
6:40:00	60.1	65.1	51.9	10	10	10232930	10232930	1023293	1232760	60.90879	
6:41:00	64.5	75.5	46.9	10	10	28183829	28183829	2818382.9	1237176	60.92432	
6:42:00	59.1	66.3	49.9	10	10	8128305	8128305	812830.52	1216017	60.8494	
6:43:00	58	64.6	48.9	10	10	6309573	6309573	630957.34	1244334	60.94937	
6:44:00	62	65.9	53.9	10	10	15848932	15848932	1584893.2	1260849	61.00663	
6:45:00	62.9	69.9	49.9	10	10	19498446	19498446	1949844.6	1255416	60.98788	
6:46:00	63	71.2	52.9	10	10	19952623	19952623	1995262.3	1240371	60.93551	
6:47:00	60.3	65.6	50.9	10	10	10715193	10715193	1071519.3	1216067	60.84957	
6:48:00	59.9	65.7	44.9	10	10	9772372	9772372	977237.22	1227846	60.89144	
6:49:00	56.3	63.5	47.9	10	10	4265795	4265795	426579.52	1227846	60.89144	
6:50:00	58.9	64.7	48.9	10	10	7762471	7762471	776247.12	1258048	60.99697	
6:51:00	58.4	64.7	48.9	10	10	6918310	6918310	691830.97	1296616	61.12811	
6:52:00	62.9	66.4	50.9	10	10	19498446	19498446	1949844.6	1307056	61.16294	
6:53:00	60.4	65.6	47.9	10	10	10964782	10964782	1096478.2	1311022	61.1761	
6:54:00	58.8	65	45.9	10	10	7585776	7585776	758577.58	1319162	61.20298	
6:55:00	58.6	64.7	48.9	10	10	7244360	7244360	724435.96	1341341	61.27539	
6:56:00	60.3	65.5	47.9	10	10	10715193	10715193	1071519.3	1347967	61.29679	
6:57:00	61.9	68.3	49.9	10	10	15488166	15488166	1548816.6	1380441	61.40018	
6:58:00	60.3	65.6	49.9	10	10	10715193	10715193	1071519.3	1375132	61.38344	
6:59:00	59.9	64.9	47.9	10	10	9772372	9772372	977237.22	1383087	61.40849	
7:00:00	60.9	67.2	46.9	10	10	12302688	12302688	1230268.8	1395763	61.44812	
7:01:00	61.5	67.2	51.9	0	0	1412538	1412538	1412537.5	1412570	61.5001	
7:02:00	60.4	69.1	46.9	0	0	1096478	1096478	1096478.2	1410999	61.49527	
7:03:00	61.3	66.7	51.9	0	0	1348963	1348963	1348962.9	1435564	61.57023	
7:04:00	60	64.1	50.9	0	0	1000000	1000000	1000000	1432217	61.56009	
7:05:00	61.3	66	50.9	0	0	1348963	1348963	1348962.9	1440777	61.58597	
7:06:00	60.9	66.6	49.9	0	0	1230269	1230269	1230268.8	1440265	61.58442	
7:07:00	59.4	64.8	47.9	0	0	870964	870964	870963.59	1440743	61.58586	
7:08:00	58.9	64	47.9	0	0	776247	776247	776247.12	1442893	61.59234	
7:09:00	61.8	67.6	49.9	0	0	1513561	1513561	1513561.2	1456371	61.63272	
7:10:00	61.9	66.7	54.9	0	0	1548817	1548817	1548816.6	1451649	61.61862	
7:11:00	59.5	64.7	48.9	0	0	891251	891251	891250.94	1449926	61.61346	
7:12:00	60.4	66.4	47.9	0	0	1096478	1096478	1096478.2	1464710	61.65752	
7:13:00	60.8	65.5	51.9	0	0	1202264	1202264	1202264.4	1468918	61.66998	
7:14:00	60.1	68.3	47.9	0	0	1023293	1023293	1023293	1475910	61.6906	
7:15:00	60.5	68.6	46.9	0	0	1122018	1122018	1122018.5	1487160	61.72358	
7:16:00	60.3	65.7	47.9	0	0	1071519	1071519	1071519.3	1485126	61.71763	
7:17:00	60.1	64.4	47.9	0	0	1023293	1023293	1023293	1487772	61.72536	
7:18:00	61.9	65.3	46.9	0	0	1548817	1548817	1548816.6	1488576	61.72771	
7:19:00	61	67.4	46.9	0	0	1258925	1258925	1258925.4	1484733	61.71648	
7:20:00	61.2	68.3	48.9	0	0	1318257	1318257	1318256.7	1480038	61.70273	
7:21:00	62.7	70.4	46.9	0	0	1862087	1862087	1862087.1			
7:22:00	62.1	67.9	54.9	0	0	1621810	1621810	1621810.1			
7:23:00	62.2	69.9	49.9	0	0	1659587	1659587	1659586.9			
7:24:00	58.9	64.4	50.9	0	0	776247	776247	776247.12			
7:25:00	61.2	64.7	50.9	0	0	1318257	1318257	1318256.7			
7:26:00	61.4	69.9	50.9	0	0	1380384	1380384	1380384.3			
7:27:00	59.3	65.2	50.9	0	0	851138	851138	851138.04			

7:28:00	59.1	65.3	48.9	0	0	812831	812831	812830.52	
7:29:00	61.2	68	46.9	0	0	1318257	1318257	1318256.7	
7:30:00	62	66.1	52.9	0	0	1584893	1584893	1584893.2	
7:31:00	58.8	66.4	47.9	0	0	758578	758578	758577.58	
7:32:00	59.4	67.5	45.9	0	0	870964	870964	870963.59	
7:33:00	60.6	66.1	48.9	0	0	1148154	1148154	1148153.6	
7:34:00	63.9	72.1	56.9	0	0	2454709	2454709	2454708.9	
7:35:00	58.3	63.3	49.9	0	0	676083	676083	676082.98	
7:36:00	62.8	67.2	51.9	0	0	1905461	1905461	1905460.7	
7:37:00	61.8	65.7	52.9	0	0	1513561	1513561	1513561.2	
7:38:00	62	66.7	52.9	0	0	1584893	1584893	1584893.2	
7:39:00	59.9	65.1	48.9	0	0	977237	977237	977237.22	
7:40:00	61.1	68	48.9	0	0	1288250	1288250	1288249.6	
7:41:00	61.9	66	52.9	0	0	1548817	1548817	1548816.6	
7:42:00	64	68.3	52.9	0	0	2511886	2511886	2511886.4	
7:43:00	62.1	66.8	51.9	0	0	1621810	1621810	1621810.1	
7:44:00	61	65.3	52.9	0	0	1258925	1258925	1258925.4	
7:45:00	60.2	67.5	47.9	0	0	1047129	1047129	1047128.5	
7:46:00	57.3	64.4	46.9	0	0	537032	537032	537031.8	
7:47:00	62.5	67.9	49.9	0	0	1778279	1778279	1778279.4	
7:48:00	59.9	66	47.9	0	0	977237	977237	977237.22	
7:49:00	63.5	67.3	54.9	0	0	2238721	2238721	2238721.1	
7:50:00	64.9	67.9	61.9	0	0	3090295	3090295	3090295.4	
7:51:00	61.2	65.7	52.9	0	0	1318257	1318257	1318256.7	
7:52:00	63.4	68.3	54.9	0	0	2187762	2187762	2187761.6	
7:53:00	62	66.6	50.9	0	0	1584893	1584893	1584893.2	
7:54:00	63.2	66.5	50.9	0	0	2089296	2089296	2089296.1	
7:55:00	60.5	66	48.9	0	0	1122018	1122018	1122018.5	
7:56:00	64.8	68.4	56.9	0	0	3019952	3019952	3019951.7	
7:57:00	60.9	65.9	52.9	0	0	1230269	1230269	1230268.8	
7:58:00	61.9	65.4	49.9	0	0	1548817	1548817	1548816.6	
7:59:00	62.4	66.1	50.9	0	0	1737801	1737801	1737800.8	
8:00:00	63.5	72	52.9	0	0	2238721	2238721	2238721.1	
8:01:00	61.2	67.6	52.9	0	0	1318257	1318257	1318256.7	
8:02:00	64.1	72.8	47.9	0	0	2570396	2570396	2570395.8	
8:03:00	60.6	66.1	49.9	0	0	1148154	1148154	1148153.6	
8:04:00	61.8	66	50.9	0	0	1513561	1513561	1513561.2	
8:05:00	61.2	64.6	52.9	0	0	1318257	1318257	1318256.7	
8:06:00	61	64.4	49.9	0	0	1258925	1258925	1258925.4	
8:07:00	60	66.8	48.9	0	0	1000000	1000000	1000000	
8:08:00	62	69.2	47.9	0	0	1584893	1584893	1584893.2	
8:09:00	60.9	65.9	52.9	0	0	1230269	1230269	1230268.8	
8:10:00	61.6	65.9	50.9	0	0	1445440	1445440	1445439.8	
8:11:00	62.5	67.2	52.9	0	0	1778279	1778279	1778279.4	
8:12:00	61.3	68.5	48.9	0	0	1348963	1348963	1348962.9	
8:13:00	62.1	66.4	52.9	0	0	1621810	1621810	1621810.1	
8:14:00	62.3	67.4	53.9	0	0	1698244	1698244	1698243.7	
8:15:00	60	65.1	49.9	0	0	1000000	1000000	1000000	
8:16:00	60.9	65.1	50.9	0	0	1230269	1230269	1230268.8	
8:17:00	60.3	63.5	54.9	0	0	1071519	1071519	1071519.3	
8:18:00	61.2	66.1	50.9	0	0	1318257	1318257	1318256.7	
8:19:00	59.9	65.1	50.9	0	0	977237	977237	977237.22	End of 24 hours
8:20:00	62.5	66	57.9	0	0				
8:21:00	62.2	68.1	51.9	0	0				
8:22:00	61.5	67.1	54.9	0	0				
8:23:00	61	65.2	51.9						
8:24:00	63.1	66.8	53.9						
8:25:00	62	67.2	53.9						
8:26:00	62.3	67.1	51.9						

TRAFFIC AND PARKING IMPACT ANALYSIS KINGS COUNTY NEW SUPERIOR COURT COURTHOUSE

I. INTRODUCTION, PROJECT LOCATION AND BACKGROUND

At the request of the Administrative Office of the Courts (AOC), State of California, Crane Transportation Group has analyzed traffic issues associated with the proposed Kings County New Superior Court Courthouse. The proposed project site is in the City of Hanford, Kings County, California, located immediately west of the new Kings County jail. Access to the site would be via the 12th Avenue/ Liberty Street intersection. The site is located northwest of the Kings County Government Center, and would have direct access from an east-west extension of Kings County Drive.

The purpose of the proposed project is to provide a new courthouse with 12 courtrooms to meet the needs of the Superior Court and consolidate the facilities to ensure safer and more efficient operations in the long-term. The proposed project's objectives are to:

- Consolidate five inadequate facilities in poor condition;
- Increase court operational efficiency and improve public service through consolidation of adult and juvenile court operations in one location; and
- Expand staff by 43 (from 123 to 166) and increase judgeships from 11 to 14.

The new courthouse will replace and consolidate five existing court facilities, and provide support space for court administration, the court clerk, court security operations and holding, and building support space. A 360-space surface parking lot will accommodate staff and visitors, including jurors. The project's pre-design planning has taken the Superior Court's future growth into consideration.

The proposed courthouse site fronts along the east side of 12th Avenue on a County-owned parcel located west of the County's new jail in southwest Hanford (see **Figures 1 and 2**). The AOC is considering acquisition of approximately 7 acres from the County, but the AOC and County have not yet determined parcel boundaries.

The AOC plans to acquire a site in late 2010, begin construction in 2013, and complete construction in late 2014, with occupancy by 2015. Facilities to be consolidated are shown in **Table 1.**

Table 1
EXISTING COURTHOUSE FACILITIES
TO BE MOVED AND CONSOLIDATED

Facility	Address	Notes
Hanford Building A.	1426 South Drive Hanford, CA 93230	Departments 5 and 6. Hears all but Family law. (1)
Hanford Building B	1426 South Drive Hanford, CA 93230	Departments 1, 2 and 7. Hears all but Family Law.(1)
Hanford Building C.	1426 South Drive Hanford, CA 93230	Departments 3 and 4. Hears all but Family Law.(1)
Hanford Probation Building	1424 Forum Drive, Dept. 8 Hanford, CA 93230	Juvenile Services (1)
Lemoore Superior Court	449 C Street Lemoore, CA 93245	Family Law

(1) Matters heard collectively at the courts in Hanford include, but are not limited to, the following: criminal, traffic, civil, juvenile dependency and delinquency, small claims, probate, appeals, unlawful detainer, conservatorships and guardianships.

Source: Project Feasibility Report, Superior Court of California, County of Kings, New Hanford Courthouse, prepared by the Administrative Office of the Courts (AOC), Office of Court Construction and Management, November 2, 2009.

After completion of the new courthouse, the Superior Court will vacate these facilities. It is assumed that they will be occupied by government office uses during the same time period (2015) as the consolidation of facilities at the new courthouse.

Since the AOC is the project's lead agency and is acting for the State of California on behalf of the Judicial Council of California, local governments' land use planning and zoning regulations do not apply to the proposed courthouse project. The AOC will base the design of the new courthouse on its Principles of Design for California Court Buildings, and will apply the following codes and standards: California Building Code (edition in effect as of the commencement of schematic design phase of a particular court project); California Government Code, California Code of Regulations, Title 24; California Energy Code, Americans With Disabilities Act; American Disability Act Accessibility Guidelines (Section 11); and Division of the State Architect's Access Checklist. Development of the proposed project's intersection improvements and new traffic signal will confirm to the City's engineering and design standards.

Major work tasks for this traffic analysis consisted of:

- Conduct of weekday AM peak period traffic counts at eighteen intersections expected to be affected by the shift in courthouse traffic in Hanford, and transfer of traffic from the Family court in Lemoore.

- Written surveys of existing courthouse staff and visitors on a peak activity day to determine times of arrival and departure, mode of travel, and trip origins and destinations.

- Determination of the future year 2015 Base Case (without courthouse project) traffic volumes at the eighteen study intersections, incorporating planned roadway improvements by 2015 and trips generated by approved development projects in Hanford.

- Projection of weekday AM peak hour trip generation associated with the proposed courthouse in consultation with City, County and State representatives.

- Removal of the component of courthouse traffic to be relocated, and distribution of the all courthouse traffic to be relocated to the eighteen study intersections.

- Determination of whether the proposed location(s) of the courthouse would negatively impact operation of the intersections analyzed.

II. SUMMARY

1. Existing AM peak hour operating conditions (levels of service) at the eighteen analyzed intersections are at or better than LOS C at all locations.

2. Roadway improvements are planned within the near vicinity of the project by 2015[1] (the date of expected project occupancy and full operation). These include the Greenfield Avenue connection and extension; widening of 12th Avenue to provide two through lanes in each direction through its intersection with Liberty Street, north to Grangeville Boulevard; and concurrent with construction of the new courthouse on the project site (just west of the new jail), Kings County Drive would be extended to serve the new courthouse and become the westbound approach to the Liberty Street/ 12th Avenue intersection. In addition, approved projects, among them the new Hanford Community Medical Center on 7th Street, would add traffic to the roadway system by 2015.

[1] Johnathan Doyel, Deputy Public Works Director, City of Hanford, e-mail and telephone communications, August, 2010.

3. Future (year 2015 - without project) operation at analyzed intersections and 12th Avenue roadway segments would be at or better than LOS D for all analyzed locations.

4. The proposed project would be expected to generate 466 inbound and 117 outbound vehicle trips during the 2015 AM peak commute traffic hour (7:30 – 8:30). These projections take into account all existing traffic traveling to and from the five Hanford and Lemoore court facilities to be consolidated. Projections include the planned 12 courtrooms, 14 judgeships, staff additions and projected growth in overall court activity by 2015. The project increment of volumes also includes re-use of the existing court facilities in the Kings County Government Center (92 inbound, and 12 outbound, AM peak hour trips). Trips would be dispersed to and from all directions surrounding the site, based primarily upon origin/destination information obtained through surveys of courthouse staff and visitors, taking into account planned improvements to the roadway system.

5. Year 2015 Base Case + project operating conditions (levels of service) at each analyzed intersection and 12th Avenue roadway segment for the weekday AM peak hour will continue at or better than LOS D, assuming minor signal cycle green time adjustments on 12th Avenue. .

6. The AOC's development of the project site will conform to recommendations of the Superior Court of California (Kings County), the Kings County Sheriff's Department, and the City of Hanford Fire Department to ensure adequate emergency access. The proposed project would provide a new roadway connection (Kings County Drive extension), and would not include closure of any existing public through street that is currently used for emergency services. It would not be expected to interfere with any emergency response plan. Therefore, no significant impacts are anticipated.

7. The proposed project would not be expected to conflict with adopted policies, plans, or programs supporting alternative transportation. Bus transportation is available along Lacey Boulevard at Kings County Drive today.

8. Bicycle parking would be provided on the site in compliance with city and state standards. Pedestrian access to and from the site would be an issue of focus in site planning, with pedestrian signal and crosswalks provided at the12th Avenue Street/ Kings County Drive/ Liberty Street intersection. No significant impacts are anticipated in relation to provision of facilities for transit, bicycle and pedestrian access.

III. SETTING

A. ROADWAYS AND INTERSECTIONS

Regional access is provided to the project site vicinity by the following facilities:

The State Route (S.R.) 198 freeway provides regional east-west access to Hanford. It extends between the U.S. 101 freeway in Monterey County, easterly to the I-5 freeway. In the vicinity of 11th and 12th avenues, S.R. 198 is a four-lane controlled access facility.

The following major roadways provide primary circulation routes within the project site vicinity; most streets provide sidewalks on both sides.

Lacey Boulevard is the major east-west arterial route through Hanford. It extends from areas north of Lemoore, east through the 12th Avenue intersection in west Hanford to Irwin Street in downtown Hanford. At its intersection with 12th Avenue Lacey Boulevard has two through lanes and left and right turn lanes on all approaches, with the exception of the westbound approach, where there are three through lanes. Within the study area, Lacey Boulevard has signalized intersections with the north-south streets included in this analysis. Primary access to the Kings County Government Center and existing Superior Court facilities in Hanford is via Lacey Boulevard at Kings County Drive, Campus Drive, and Mather Drive (a primary entrance to the Kings County Government Center located between Kings County Drive and Campus Drive).

12th Avenue is a north-south, two- to four-lane arterial roadway serving western Hanford. It extends through the city, reaching north and south of the Hanford city limits. Twelfth Avenue has a full diamond interchange with the S.R. 198 freeway, with signals at the eastbound and westbound ramps intersections. Within the study area for this project, 12th Avenue also has signalized intersections with Grangeville Boulevard, Centennial Plaza Shopping Center, Lacey Boulevard and Mall Drive. It is uncontrolled at the side street stop sign controlled intersection with Liberty Street. Twelfth Avenue has single through lanes between Grangeville Boulevard and Liberty Street, and four through lanes (two through lanes in each direction) through its intersections with Centennial Plaza Shopping Center, Lacey Boulevard and Mall Drive. By early 2015, the city has planed and funded improvements for widening 12th Avenue to four lanes (two through lanes in each direction) north of the Centennial Plaza Shopping Center intersection.

11th Avenue is a north-south, two- to four-lane arterial roadway serving western Hanford. It has four lanes between Ivy Street and Hume Avenue. Eleventh Avenue has a partial interchange with the S.R. 198 freeway, with signals at the eastbound on-ramp and the westbound off-ramp intersections. Within the study area for this project, 11th Avenue has signalized intersections with Lacey Boulevard, 7th Street, 4th Street and 3rd Street.

Grangeville Boulevard is an east-west, two- to five-lane arterial street extending east from Grangeville Boulevard Bypass north of the Lemoore Naval Air Station, to just west of State Route 99 where the road name changes to Avenue 304. Grangeville Boulevard intersects 12th

Avenue about one mile north of Lacey Boulevard. Its signalized intersection with 12th Avenue has separate left and right turn lanes on all approaches and two through lanes on the eastbound intersection approach.

Greenfield Avenue is currently a discontinuous two-lane, east-west, and north-south street. One segment of Greenfield Avenue, located east of 12th Avenue in the vicinity of Fitzgerald Lane, is not yet connected. However, by early 2015 this roadway will be continuous between Lacey Boulevard (east of Campus Drive), extending north, then west through the Campus Drive intersection, through a signalized intersection with 12th Avenue, extending east to terminate at a "tee" intersection with Centennial Drive. This roadway provides access to the Hanford Towne Shopping Center, Hanford's Youth Athletic Complex, an Elm Street connection with 11th Avenue, and will provide a future, alternative route to and from 12th Avenue and Centennial Drive, near the High School, relieving Lacey Boulevard and other existing routes of some of the existing peak hour traffic volume.

Liberty Street is an east-west, two-lane roadway providing access to residences located west of 12th Avenue. It extends between "tee" intersections with 12th Avenue and Centennial Drive.

Kings County Drive is a north-south, two-lane street serving the Kings County Government Center, north of Lacey Boulevard. Kings County Drive currently terminates at the new Kings County Jail, located north of the Government Center, and directly east (adjacent) to the project site. Kings County Drive is planned to be extended west as the fourth leg of the Liberty Street/12th Avenue intersection. If the proposed courthouse is constructed on the 12th Avenue "project site," this planned roadway connection will be constructed as part of the courthouse project.

Mall Drive is a two-lane collector street in western Hanford serving the Hanford Mall Shopping Center and the new Walmart and Target centers fronting 12th Avenue. Mall Drive forms the northbound approach to the Kings County Drive/ Lacey Boulevard signalized intersection.

West 7th Street is an east-west, two-lane arterial street serving the newly constructed Hanford Community Medical Center and a variety of other office, medical and commercial uses. It extends east between a stop sign controlled "tee" intersection with Mall Drive, through a signalized intersection with 11th Avenue, extending northeast to terminate at 10th Avenue.

Campus Drive is a north-south, two-lane street providing access to public educational and institutional uses located just east of the Kings County Government Center and north of Lacey Boulevard. It extends north from West 7th Street to its terminus at Westwood Drive in residential areas north of Greenfield Avenue.

Centennial Drive is a north-south, two-lane collector roadway providing access to residences and the high school athletic facilities in west Hanford. It extends between a connection with Mall Drive south of Lacey Boulevard, through an intersection with Lacey Boulevard, to residential areas north of Grangeville Boulevard.

West 3rd Street and West 4th Street are two-lane streets that form a couplet, with 3rd Street carrying eastbound traffic and 4th Street carrying westbound traffic. They provide direct connections with the eastbound off, and westbound on ramps to the S.R. 198 freeway.

West 5th Street is an east-west, two-lane roadway that extends from just west of 11th Avenue to just east of 10th Avenue. It provides access to industrial, manufacturing, automotive and other mixed uses.

B. EXISTING AND FUTURE BASE CASE (EARLY YEAR 2015 - WITHOUT PROJECT) TRAFFIC VOLUMES

1. EXISTING CONDITIONS

Weekday traffic counts were conducted at the request of Crane Transportation Group on a day in late May, 2010 from 7:00 – 9:00 AM at the following intersections:

1. Grangeville Boulevard/ 12th /Avenue
2. Greenfield Avenue/ 12th Avenue
3. Liberty Street/ 12th Avenue
4. Centennial Plaza Driveway/ 12th Avenue
5. Lacey Boulevard/ 12th Avenue
6. Mall Drive/ 12th Avenue
7. Westbound S.R.198 Ramps/ 12th Avenue
8. Eastbound S.R.198 Ramps/ 12th Avenue
9. Lacey Boulevard/ Centennial Drive
10. Lacey Boulevard/ Kings County Drive/ Mall Drive
11. Mall Drive/ 7th Street
12. Lacey Boulevard/ Campus Drive
13. Campus Drive/ 7th Street
14. Lacey Boulevard/ 11th Avenue
15. 7th Street/ 11th Avenue
16. 5th Street/ 11th Avenue
17. 4th Street/ 11th Avenue
18. 3rd Street/ 11th Avenue

Since most Kings County Superior courts end daily sessions prior to the weekday ambient PM peak traffic hour, court-related traffic volumes are far less during the ambient PM peak hour than during the ambient AM peak hour. For this reason, the focus of this traffic analysis is on the weekday AM peak hour, when staff, prospective jurors, and other members of the public are arriving at court facilities.

Figure 1 shows the roadway system, **Figure 2** shows intersection geometry and control and **Figure 3** shows AM peak hour traffic volumes at all analyzed locations. The morning ambient

peak traffic hour at intersections nearest the Hanford court facilities was determined to occur between 7:30 and 8:30 AM.

The court's morning peak traffic hour (associated with start of court activity and support services, arrival of prospective jurors and others seeking court services) was found to coincide with the morning ambient peak traffic commute hour (7:30 – 8:30).

2. FUTURE CONDITIONS (YEAR 2015)

Year 2015 Base Case (without project) traffic projections were developed for the eighteen analyzed intersections for the AM peak hour analysis time period. This planning horizon was chosen for analysis as it is anticipated that if approved, the court could be constructed and occupied (operating) by 2015. Growth rates utilized to factor existing counts to year 2015 conditions were slightly less than 1% per year, and also incorporate roadway improvement projects that would be constructed in the downtown area by early 2015, as follows [2]:

- **12th Avenue widening** – For purposes of this analysis, it is assumed that the City will complete the planned widening (to two lanes each direction) of 12th Avenue north, through the Liberty Street intersection to the Grangeville Boulevard intersection.
- **Greenfield Avenue improvements** - by 2015 improvements are planned and funded to connect the existing segments of Greenfield Avenue and extend it westward. It will provide a continuous roadway between Lacey Boulevard (east of Campus Drive), extending north, then west through the Campus Drive intersection, through a signalized intersection with 12th Avenue, terminating at a "tee" intersection with Centennial Drive. This "loop" roadway will remove traffic from the Lacey Boulevard and 12th Avenue corridor, and will improve operations at intersections all along these major roadways serving high school access and commuter traffic in west Hanford.
- **Kings County Drive extension** – this roadway is planned to extend along the south boundary of the new courthouse to form the westbound approach to the Liberty Street/12th Avenue intersection. Since this improvement would only occur with development of adjacent parcels, if the new courthouse is constructed on the project site as proposed, this roadway connection is included as part of the "project."

Year 2015 volumes take into account approved projects, shown in **Table 2.**

[2] Johnathan Doyel, Deputy Public Works Director, City of Hanford, e-mail and telephone communications, August, 2010.

Table 2

TRIP GENERATION – APPROVED PROJECTS

COMMERCIAL

USE	SIZE	AM PEAK HOUR TRIPS			
		INBOUND		OUTBOUND	
		RATE	VOL	RATE	VOL
Hotel	90 rooms	(1)	31	(1)	20
High Turnover Restaurant	7,000 sq.ft.	(2)	42	(2)	39
Banquet Hall	8,000 sq.ft.	(3)	0	(3)	0
Car Wash	5,000 sq. ft.	SANDAG(4)	18	SANDAG (4)	18
Tire Store	5,000 sq.ft.	1.82 (5)	9	1.07 ((5)	5

INSTITUTIONAL/MEDICAL/OFFICE

USE	SIZE	AM PEAK HOUR TRIPS			
		INBOUND		OUTBOUND	
		RATE	VOL	RATE	VOL
High School(growth component)	300 students	0.29 (6)	87	0.13 (6)	39
Church	25,160 sq. ft.	0.35 (7)	9	0.21 (7)	5
Hospital	144 beds	(8)	79	(8)	32
Cancer Center	10,400 sq.ft.	1.81 (9)	19	0.48 (9)	5
Medical Offices	48,000 sq.ft.	1.81 ((9)	87	0.48 (9)	23

RESIDENTIAL

USE	NUMBER OF UNITS	AM PEAK HOUR TRIPS			
		INBOUND		OUTBOUND	
		RATE	VOL	RATE	VOL
Apartments	136 units	(10)	14	(10).	56
Single Family Homes (Tract 843 - part)	200 units	((11)	37	(11)	112
Single Family Homes (Live Oak Subdivision - part)	145 units	(11)	28	(11)	83

(1) ITE Land Use 310 Hotel – 90 rooms - per Revised Limited Traffic Analysis for *Lot 2 of Tract 806*, July, 2008, by Peters Engineering.

(2) ITE Land Use 932 High Turnover Restaurant - 7,000 sq.ft., per Revised Limited Traffic Analysis for *Lot 2 of Tract 806*, July, 2008, by Peters Engineering.

(3) Land Use - Banquet Hall, 8,000 sq.ft - no morning use, per Revised Limited Traffic Analysis for *Lot 2 of Tract 806*, July, 2008, by Peters Engineering.

(4) Land Use – Car Wash - SANDAG (*San Diego Traffic Generators*) 900/ sq.ft. , 4% AM (61% inbound/39% outbound). There is no data provided for the weekday AM peak hour in *Trip Generation*, ITE.

(5) ITE Land Use 848, Tire Store.

(6) ITE Land Use 530, High School – 300 student addition assumed by 2015..

(7) ITE Land Use 560, Church.

(8) ITE Land Use 610, Hospital. T = 1.33(x) – 80.91 (71% inbound, 29% outbound).

(9) ITE Land Use 720, Medical Offices.

(10) ITE Land Use 220, Apartments. T=0.49(x) + 3.73 (20% inbound, 80% outbound).

(11) ITE Land Use 210, Single Family Residences. T=0.70(x) + 9.74(25% inbound, 75% outbound).

Development Sources: Cathy Cain, City of Hanford Planning Director, and Johnathan Doyel, City of Hanford Deputy Public Works Director.
Trip Rate Source: Trip Generation, 8th Edition by the Institute of Transportation Engineers, 2008 and San Diego Traffic Generators (SANDAG), 2002.

Compiled by: Crane Transportation Group

Planned roadway improvements are shown on **Figure 4,** and resultant year 2015 AM peak hour (without project) volumes for the study area roadway network are shown on **Figure 5.**

C. METHODOLOGY

1. INTERSECTION LEVEL OF SERVICE

Transportation engineers and planners commonly use a grading system called level of service (LOS) to measure and describe the operational status of the local roadway network. LOS is a description of the quality of a roadway facility's operation, ranging from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). Intersections, rather than roadway segments between intersections, are almost always the capacity controlling locations for any circulation system.

Signalized Intersections. For signalized intersections, the 2000 *Highway Capacity Manual* (Transportation Research Board, National Research Council) methodology was utilized. With this methodology, operations are defined by the level of service and average control delay per vehicle (measured in seconds) for the entire intersection. For a signalized intersection, control delay is the portion of the total delay attributed to traffic signal operation. This includes delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 3** summarizes the relationship between delay and LOS for signalized intersections.

Table 3
Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay (Seconds Per Vehicle)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, and/or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0

Source: 2000 Highway Capacity Manual (Transportation Research Board, 2000).

Unsignalized Intersections. For unsignalized (all-way stop-controlled and side-street stop-controlled) intersections, the 2000 Highway Capacity Manual (Transportation Research Board, National Research Council) methodology for unsignalized intersections was utilized. For side-street stop-controlled intersections, operations are defined by the level of service and average control delay per vehicle (measured in seconds), with delay typically represented for the stop sign controlled approaches or turn movements. For all-way stop-controlled intersections, operations are defined by the average control delay for the entire intersection (measured in seconds per vehicle). The delay at an unsignalized intersection incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 4** summarizes the relationship between delay and LOS for unsignalized intersections.

Table 4
Unsignalized Intersection LOS Criteria

Level of Service	DESCRIPTION	Average Control Delay (Seconds Per Vehicle)
A	Little or no conflicting traffic; little or no delays	< 10.0
B	The approach begins to notice absence of available gaps; short traffic delays	> 10.1 to 15.0
C	The approach begins experiencing delay for available gaps; average traffic delays	>15.1 to 25.0
D	The approach experiences queuing due to a reduction in available gaps; long traffic delays	> 25.1 to 35.0
E	Extensive queuing due to insufficient gaps; very long traffic delays	> 35.1 to 50.0
F	Insufficient gaps of suitable size to allow traffic demand to cross safely through a major traffic stream; extreme traffic delays with intersection capacity exceeded (for an all-way stop), or with approach/turn movement capacity exceeded (for a side street stop controlled intersection).	> 50.0

Source: 2000 Highway Capacity Manual (Transportation Research Board, 2000.

2. ROADWAY SEGMENT LEVEL OF SERVICE

For 2015 Bas Case conditions, roadway segment level of service was analyzed for the 12th Avenue corridor from the State Route 198 freeway to Grangeville Boulevard using the Highway Capacity Manual (HCM) methodology as applied by the Florida Department of Transportation's (FDOT) ARTPLAN, 2009. ARTPLAN is FDOT's multimodal planning and preliminary engineering software for signalized roadways. For the automobile mode, ARTPLAN is primarily used to analyze signalized roadways in which average travel speed is the service measure used to determine LOS. It is widely recognized as the primary planning software program implementing the HCM urban streets methodology (HCM Chapter 15).

Minimum Acceptable Standard. The City of Hanford has adopted an overall LOS standard of C with peak hour LOS standard of D acceptable in some instances. Due to the nature of

the roadway system, improvements to existing developed areas is extremely difficult. As a result, there may be instances where a lower LOS is acceptable.[3] For purposes of this study, a level of service below LOS D is considered unacceptable, and in need of mitigation. This standard applies to both intersections and roadway segments.

D. EXISTING (WITHOUT PROJECT) INTERSECTION OPERATION

1. INTERSECTION LEVEL OF SERVICE

Table 5 provides existing operating conditions (levels of service) at each analyzed intersection for the AM peak hour. As shown, existing AM peak hour operating conditions (levels of service) at the eighteen analyzed intersections are acceptable (at or better than LOS C) at all locations.

Table 5
AM PEAK HOUR INTERSECTION LEVEL OF SERVICE

INTERSECTION	AM Peak Hour Existing
1. Grangeville Blvd./ 12th Avenue	C-21.8 (1)
2. Greenfield Avenue/ 12th Avenue*	C-21.1 (2)
3. Liberty Street/ 12th Avenue **	C-24.0/C-18.6 (3)
4. Centennial Plaza Driveway/ 12th Avenue	B-11.4 (1)
5. Lacey Boulevard/ 12th Avenue	C-21.6 (1)
6. Mall Drive/12th Avenue	B-17.6 (1)
7.WB S.R.198 Ramps/12th Avenue	B-13.9 (1)
8. EB S.R.198 Ramps/12th Avenue	B-18.5 (1)
9. Lacey Blvd./Centennial Drive	B-15.4 (1)
10. Lacey Blvd./Kings Co Drive/ Mall Drive	B-19.4 (1)
11. Mall Drive/ 7th Street	C-22.3/C-18.9 (4)
12. Lacey Blvd./Campus Drive	C-20.3 (1)
13. Campus Drive/ 7th Street	A-9.7 (5)
14. Lacey Blvd./11th Avenue	C-20.2 (1)
15. 7th Street/ 11th Avenue	B-17.8 (1)
16. 5th Street/ 11th Avenue	B-10.7 (1)
17. 4th Street/ 11th Avenue	B-13.7 (1)
18. 3rd Street/ 11th Avenue	B-14.7 (1)

(1) Signalized LOS – Average control delay in seconds.
(2) Side street stop sign controlled LOS – Average control delay in seconds – Greenfield Avenue approach.
(3) Side street stop sign controlled LOS – Average delay in seconds –Liberty Street left turn/Liberty Street approach.
(4) Side street stop sign controlled LOS – Average delay in seconds 7th Street left turn/7th Street approach.

[3] City of Hanford General Plan Circulation Element, June 18, 2002, page CI-4.

(5) All-Way-Stop LOS

* By 2015 Greenfield Avenue will be extended west of its intersection with 12th Avenue, and it would be signalized.
**By 2015 with the courthouse constructed just west of the new County jail, the Liberty Street/ 12th Avenue intersection would have Kings County Drive extended as its westbound approach; this is planned as part of the project.

Source: Crane Transportation Group

E. YEAR 2015 BASE CASE (WITHOUT PROJECT) INTERSECTION AND ROADWAY SEGMENT OPERATION

1. INTERSECTION LEVEL OF SERVICE

Table 6 provides future (year 2015) operating conditions (levels of service) at each intersection for the AM peak hour. Year 2015 Base Case (i.e., without project) operation at analyzed intersections would continue to operate acceptably, at or better than LOS D, at all analyzed intersections.

Table 6
AM PEAK HOUR INTERSECTION LEVEL OF SERVICE

INTERSECTION	Existing	Near Term 2015
1. Grangeville Blvd./ 12th Avenue	C-21.8 (1)	C-21.0
2. Greenfield Avenue/ 12th Avenue*	C-21.1 (2)	B-18.4 (1)
3. Liberty Street/ 12th Avenue	C-24.0/C-18.6 (3)	D-25.2/C-18.6 (3)
4. Centennial Plaza Driveway/ 12th Avenue	B-11.4 (1)	B-11.4
5. Lacey Boulevard/ 12th Avenue	C-21.6 (1)	C-22.9
6. Mall Drive/12th Avenue	B-17.6 (1)	C-23.3
7.WB S.R.198 Ramps/12th Avenue	B-13.9 (1)	B-14.7
8. EB S.R.198 Ramps/12th Avenue	B-18.5 (1)	C-20.3
9. Lacey Blvd./Centennial Drive	B-15.4 (1)	B-16.5
10. Lacey Blvd./Kings Co Drive/ Mall Drive	B-19.4 (1)	B-19.7
11. Mall Drive/ 7th Street	C-22.3/C-18.9 (4)	D-28.4/C-22.8
12. Lacey Blvd./Campus Drive	C-20.3 (1)	C-20.5
13. Campus Drive/ 7th Street	A-9.7 (5)	B-11.3
14. Lacey Blvd./11th Avenue	C-20.2 (1)	C-20.6
15. 7th Street/ 11th Avenue	B-17.8 (1)	B-18.0
16. 5th Street/ 11th Avenue	B-10.7 (1)	B-10.7
17. 4th Street/ 11th Avenue	B-13.7 (1)	B-14.0
18. 3rd Street/ 11th Avenue	B-14.7 (1)	B-14.8

(1) Signalized LOS – Average control delay in seconds.
(2) Side street stop sign controlled LOS – Average control delay in seconds – Greenfield Avenue approach.
(3) Side street stop sign controlled LOS – Average delay in seconds –Liberty Street left turn/Liberty Street approach.
(4) Side street stop sign controlled LOS – Average delay in seconds 7th Street left turn/7th Street approach.
(5) All-Way-Stop LOS.

* By 2015 Greenfield Avenue will be extended west of its intersection with 12th Avenue; a signal would be provided at the Greenfield Avenue/12th Avenue intersection.

Bold typeface indicates unacceptable level of service operation per City standards.
Italics signify potential mitigation.

Source: Crane Transportation Group

2. ROADWAY LEVEL OF SERVICE

Roadway segments of 12th Avenue from the State Route 198 freeway to Grangeville Boulevard were analyzed for AM peak hour level of service conditions. Year 2015 Base Case (without project) roadway segments were found to operate at or better than LOS D through all segments, with only minor adjustments to signal cycle timing.

F. PUBLIC TRANSIT

The project vicinity is served by the Kings County Area Public Transit Agency (KCAPTA), an intra-governmental agency with representatives from Avenal, Kings County, Hanford and Lemoore. It is responsible for the operation of the Kings Area Rural Transit (KART). The KART system operates three services in Hanford, KART dial-a-ride, a fixed route bus service in central Hanford, and regular serviced to Lemoore, Avenal, Corcoran, and Visalia. KART offers schedules daily bus service from Hanford to Armona, Lemoore, the Lemoore Naval Air Station, Visalia, Corcoran, Stratford, Kettleman City and Avenal. Fixed routes include weekday hourly service along Lacey Boulevard, stopping at 12th Avenue, Kings County Drive, and including Mall Drive and 7th Street (Route 6). Grangeville Boulevard is included in weekday hourly service via Route 7. Hanford downtown routes do not include 12th Avenue north of Lacey Boulevard. However, dial-a-ride is available from 7:00 AM to 11:00 PM Monday through Friday and Saturday from 9:00 AM to 4:00 PM. Hanford also has private transit services (Hanford Taxi, Marathon Cab and Central Valley Cab). Orange Belt Stages provide east-west bus service.

Hanford is also served by AMTRAK passenger rail service, with a station located near Lacey Boulevard and 11th Avenue.

G. BICYCLE FACILITIES

Bicycle travel in Kings County, and in Hanford, occurs primarily by bicyclists sharing existing roadways with vehicles. Prior to 1998 there were no signed bike routes within the unincorporated area of Kings County. The first Class III bike route (a signed right-of-way shared with pedestrians or motorists) with striping was provided on Grangeville Blvd. between 12th Ave. and the Lemoore Naval Air Station; the route now extends east into Hanford. The City of Hanford has completed almost all of the listed bicycle routes in the Kings County Bicycle Plan (2001). These routes include portions of 11th Avenue, 12th Avenue (Freestone to Hume), Campus Drive, and Greenfield Avenue. Within Kings County, all state routes are open to bicycle travel as shared right-of-way except for closed freeway segments of SR 198 and SR 41.

IV. PROJECT IMPACTS

A. SIGNIFICANCE CRITERIA

The following criteria have been used for this study to determine impact significance. They are consistent with standards employed by the State of California, Kings County and the City of Hanford.

CEQA GUIDELINES

According to CEQA guidelines, a project would have a substantial impact if a proposed project would:

a) Will the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Will the project conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

c) Will the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

d) Will the project result in inadequate emergency access?

e) Will the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

f) Will the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such features?

CITY OF HANFORD GENERAL PLAN

The proposed project would have significant impacts relating to transportation if traffic resulting from the project would lead to substantial non-compliance with the following objectives and policies:

Objective CI 2
Provide timely and effective means of programming and constructing street and highway improvements to maintain an overall Level of Service of C, with a peak hour Level of Service D or better unless the City's design considerations or other public health, safety, or welfare factors determine otherwise.

Policy CI 2.2
Street improvements shall be prioritized with emphasis on current and forecasted service levels. Roadways experiencing or forecasted to experience conditions less than Level of Service D shall require improvements, unless the City's design considerations or other public health, safety, or welfare factors determine otherwise.

Policy CI 2.3
Reduce traffic congestion at key intersections throughout the City.

Program CI 2.3-A
Improve intersections operating at less than peak hour Level of Service "D" conditions by adding appropriate turning lanes to congested approaches, widening intersection approaches, or modifying signal timing at intersections and coordinating with other signals, as appropriate, unless the City's design considerations or other public health, safety, or welfare factors determine otherwise.

Policy CI 7.2
Planning and development of arterial and major collector streets shall include design features which can be used as public transit stops.

Objective PF 1
Provide sufficient levels of facilities and services prior to or concurrent with planned development.

Policy PF 2.2
New development shall be responsible for paying a financial contribution to mitigate the effect of the development on the provision of such public services as public safety, public education, water, sewer, system and other public infrastructure necessary to maintain the desired level of service.

B. ANALYSIS PROCEDURE

1. Subtract *existing* court-related traffic (shown on **Appendix Figure A-1**) from 2015 (Without Project) volumes.

Add in:

1. All court-related (project) traffic increased due to projected growth in visitors, staff and judgeships, and traffic from re-use of the vacated court facilities in the Kings County Government Center – see **Appendix Table A-1.**

2. Distribute project traffic to the 12th Avenue project site, assuming a through connection to/from Kings Co. Government Center and new four-way, signalized intersection at 12th Avenue/Liberty Street.

3. Distribute to the Alternative Project Site (7th Street), assuming no through connection to 12th Avenue from Kings County Government Center (no Kings County Drive extension).

C. PROPOSED PROJECT FEATURES

The proposed project would add three courtrooms to the existing nine courtrooms by 2015. Judgeships would increase from 11 to 14 (about 28 percent), and support staff are projected to increase from a current 123 to 166 (about 35 percent) by 2015.

The new courthouse would be located on a parcel fronting on 12th Avenue. The facility will have 360 parking spaces, including secured (restricted) parking spaces for judges. Vehicle access to the courthouse will be via 12th Avenue to an extension of Kings County Drive, which will add a new fourth, eastern connection at the existing Liberty Street/ 12th Avenue intersection. All access to the new courthouse parking lot would be via the Kings County Drive extension. The project will have a western driveway on Kings County Drive to provide access to the courthouse's public parking area and an eastern driveway to provide access to staff parking. Courthouse days and hours of operation will remain Monday through Friday, 8:00 AM to 5:00 PM.

New signalized intersection: The project would provide a signal at the Liberty Street / 12th Avenue intersection. It would be equipped with pedestrian controls and crosswalks to facilitate pedestrian access to and from the parking lot proposed to front the building along 12th Avenue.

Sidewalks around the site perimeter and pedestrian-friendly access throughout the site: Sidewalks would be provided along 12th Street, the extension of Kings County Drive, and pathways would be provided throughout the site.

Bicycle facilities: The courthouse would provide for bicycle access and parking, consistent with AOC-approved designs.

Access and Parking at the Existing Courts, and at the Proposed New Courthouse: The existing Kings County Superior Courts in Hanford are located in the Kings County Government Center, and are accessible via the following streets: Kings County Drive, Mather Drive to South Drive, and Campus Drive to South Drive and Forum Drive. Many of the major routes followed today to access existing court facilities in Hanford would be the same routes followed to access the new courthouse, along Lacey Boulevard, 12th Avenue and 11th Avenue. The following description provides a sample of the many routes that are followed today to access existing courts and describes the change in these routes required to reach the proposed new courthouse in Hanford. Visitors accessing the new courthouse from within Hanford and the region would have the option to travel the same routes as they currently travel to access the courts in Hanford, but would also have the choice of using the Greenfield Avenue extension, scheduled for completion by 2015, and the Kings County Drive extension, either from 12th Avenue or through the Kings County Government Center.

- Staff and visitors traveling from the north on 11th Avenue can turn onto West Elm Street, to Greenfield Avenue, and Campus Drive to reach the Kings County Government Center, or turn left onto Lacey Boulevard and proceed west to reach the Government Center access streets; to reach the new courthouse, staff and visitors would have a choice of

using Greenfield Avenue through to 12th Avenue, turn left on 12th Avenue, then turn left at the Kings County Drive extension/Liberty Street intersection, or proceed westbound on Lacey Boulevard, then turn right onto Kings County Drive and approach the new courthouse from the east, or turn north onto 12th Avenue, turning right at the Kings County Drive extension/Liberty Street intersection.

- Staff and visitors traveling from the east or west can turn directly into the County Government Center from Lacey Boulevard; to reach the new courthouse, traffic could follow the same route through the County Government Center on the Kings County Drive extension, or (if traveling from the west) turn from Lacey Boulevard to proceed a short distance north on 12th Avenue, then turn right at the new Kings County Drive extension/Liberty Street intersection.

Visitors would park and access the courthouse as pedestrians walking from the new parking lot to the new building's public security entrance; the majority of staff would access the courthouse from the staff portion of the parking lot using the new building's secure staff entrance.

D. PROJECT VEHICLE TRIP GENERATION

The following describes projected courthouse traffic based on counts and surveys conducted in May, 2010 in Hanford and Lemoore. Peak traffic generation occurs when the courts have a full schedule and are fully staffed, which was the case on the survey days. Taking into account use of alternatives modes of transportation found through written surveys of court staff and visitors, (i.e., public transit, carpool passenger, walking, bicycling, or a combination of these), and combining trips to and from the Hanford and Lemoore court facilities, the five court facilities experienced a total 320 inbound vehicle trips and 80 outbound vehicle trips during the AM peak hour. Year 2015 projections include a 35 percent increase in staffing, and a 28 percent increase in courthouse visitors, by 2015.[4] Thus, the following describes project traffic during the 2015 AM peak hour at the proposed new Hanford courthouse.

1. INBOUND TRAFFIC – AM PEAK HOUR

Staff Arrivals

The majority of court staff would arrive at or before 8:00 AM, with a few arriving later, but no later than 8:30 AM @ 1 vehicle per staff member. Inbound staff arrivals would consist of all those serving the courts at the Kings County Government Center, Buildings A, B, C and D, plus

[4] Existing and projected staff associated with the courts to be consolidated at the new courthouse were provided by Sandy Salyer, Deputy Court Executive Officer, Kings County Superior Court, and Monika Newman, Director of Facilities, Kings County Superior Court, via telephone and e-mail correspondence, May 15 – June 24, 2010. Projections are consistent with the *Project Feasibility Report, Superior Court of California, County of Kings, New Hanford Courthouse*, prepared by the Administrative Office of the Courts (AOC), Office of Court Construction and Management, November 2, 2009.

all those arriving at the Lemoore Court (family court) today, increased by a projected 35 percent by 2015. This would result in a total of 142 staff vehicle arrivals (this takes into account alternative modes of transportation per written survey responses for these courts).

Total Projected Staff Arrivals 7:30 - 8:30 AM: 142 vehicles

Visitor Arrivals
During the 7:30 to 8:30 AM ambient peak hour, the greatest number of visitors would arrive between 7:50 and 8:30 AM. Inbound visitors would consist of all those arriving at the Kings County Government Center, Buildings A, B, C and D today, plus all those arriving at the Lemoore Court (family court) today, increased by a projected 28 percent by 2015.

Total Projected Visitor Arrivals 7:30 - 8:30 AM: 324 vehicles (this takes into account alternative modes of transportation per written survey responses for these courts).

Total Projected Staff + Visitor Arrivals 7:30 - 8:30 AM: 466 vehicles

2. OUTBOUND PROJECT TRAFFIC – AM PEAK HOUR

Outbound project traffic is based on visitor counts and survey responses. There were a large number of brief stays for early arrivals, some drop-offs (i.e., the outbound trip from having dropped off a staff member or visitor), and trips include a few outbound delivery or maintenance vehicles.

Total Projected Outbound Vehicles 7:30 – 8:30 AM: 117 vehicles

3. INBOUND PLUS OUTBOUND PROJECT TRAFFIC – AM PEAK HOUR

The proposed project would be expected to generate a total of 466 inbound + 117 outbound trips during the AM peak hour, for a total 583 two-way (inbound + outbound) trips.

E. PROJECT VEHICLE TRIP DISTRIBUTION

AM peak hour project trip distribution is based on written survey responses of staff and court visitors, as well as observations of existing traffic patterns at intersections during the AM peak hour. It takes into account the locations of schools, in particular the high school fronting on 13th Street, and the athletic fields located along Centennial Drive, west of the project site vicinity.

AM Peak Hour Trip Distribution:

466 inbound trips, 117 outbound trips

TRIPS TO/FROM THE COURTHOUSE (BASED ON ALL SURVEY RESPONSES)

56 % to/from within Hanford = 261 inbound trips, 66 outbound trips distributed as follows:

20% to/from north
20% to/from east
10% to/from south
6% to/from west

44% to/from region = 205 inbound trips, 83 outbound trips, distributed as follows:

4% to/from north
4% to/from east
6% to/from south
30 % to/from west

Resultant 2015 Base Case + Project volumes would be distributed to the roadway network during the AM peak hour as shown on **Figure 6,** and total volumes for 2015 are shown on **Figure 7.**

F. INTERSECTION AND ROADWAY SEGMENT OPERATION

1. INTERSECTION LEVEL OF SERVICE

Table 7 shows that 2015 Base Case + project operating conditions (levels of service) at each analyzed intersection for the weekday AM peak hour will continue acceptably at or better than LOS D at all analyzed intersections**.**

Table 7
AM PEAK HOUR INTERSECTION LEVEL OF SERVICE

INTERSECTION	AM Peak Hour		
	Existing	**Near Term 2015**	**2015 Plus Project Site**
1. Grangeville Blvd./ 12th Avenue	C-21.8 (1)	C-21.0	C-21.0
2. Greenfield Avenue/ 12th Avenue*	C-21.1 (2)	B-18.4 (1)	B-19.9
3. Liberty Street/ 12th Avenue **	C-24.0/C-18.6 (3)	D-25.2/C-18.6 (3)	B-11.8
4. Centennial Plaza Driveway/ 12th Avenue	B-11.4 (1)	B-11.4	B-11.4
5. Lacey Boulevard/ 12th Avenue	C-21.6 (1)	C-22.9	C-23.2
6. Mall Drive/12th Avenue	B-17.6 (1)	C-23.3	C-25.4
7.WB S.R.198 Ramps/12th Avenue	B-13.9 (1)	B-14.7	B-15.8
8. EB S.R.198 Ramps/12th Avenue	B-18.5 (1)	C-20.3	C-23.4
9. Lacey Blvd./Centennial Drive	B-15.4 (1)	B-16.5	B-16.5
10. Lacey Blvd./Kings Co Drive/ Mall Drive	B-19.4 (1)	B-19.7	C-20.4
11. Mall Drive/ 7th Street	C-22.3/C-18.9 (4)	D-28.4/C-22.8	D-33.1/C-24.4
12. Lacey Blvd./Campus Drive	C-20.3 (1)	C-20.5	C-20.6
13. Campus Drive/ 7th Street	A-9.7 (5)	B-11.3	B-12.5
14. Lacey Blvd./11th Avenue	C-20.2 (1)	C-20.6	C-20.7
15. 7th Street/ 11th Avenue	B-17.8 (1)	B-18.0	B-18.9
16. 5th Street/ 11th Avenue	B-10.7 (1)	B-10.7	B-10.7
17. 4th Street/ 11th Avenue	B-13.7 (1)	B-14.0	B-14.1
18. 3rd Street/ 11th Avenue	B-14.7 (1)	B-14.8	B-14.8

(1) Signalized LOS – Average control delay in seconds.
(2) Side street stop sign controlled LOS – Average control delay in seconds – Greenfield Avenue approach.
(3) Side street stop sign controlled LOS – Average delay in seconds –Liberty Street left turn/Liberty Street approach.
(4) Side street stop sign controlled LOS – Average delay in seconds 7th Street left turn/7th Street approach.
(5) All-Way-Stop LOS.

* By 2015 Greenfield Avenue will be extended west of its intersection with 12th Avenue; a signal would be provided at the Greenfield Avenue/12th Avenue intersection.
******By 2015 with the new courthouse constructed just west of the new County jail, the Liberty Street/ 12th Avenue intersection would have Kings County Drive extended as its westbound approach; this is planned as part of the project.

Source: Crane Transportation Group

2. ROADWAY LEVEL OF SERVICE

Roadway segments of 12th Avenue from the State Route 198 freeway to Grangeville Boulevard were analyzed for AM peak hour level of service conditions. Year 2015 Base Case + project

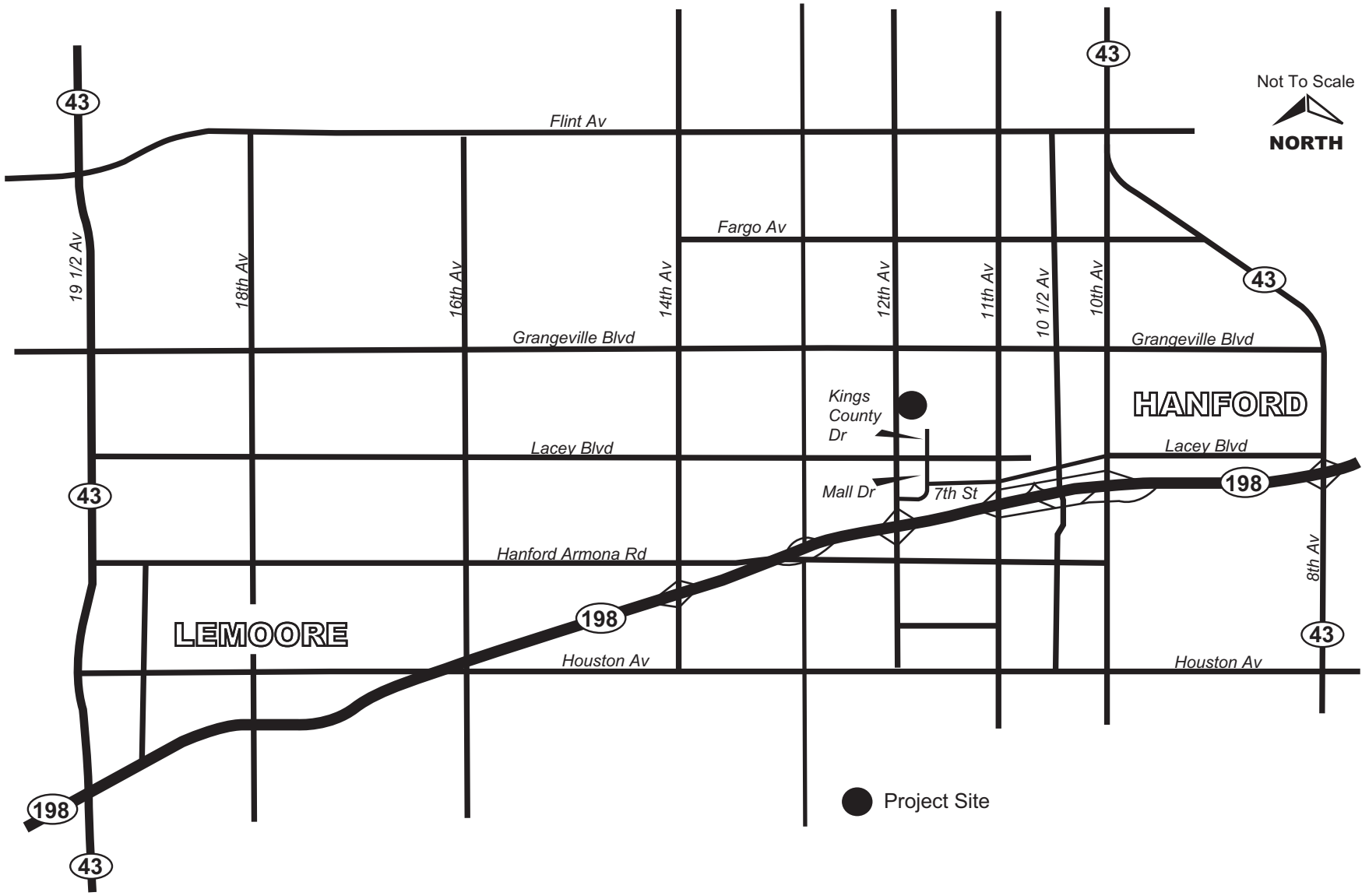
roadway segments were found to operate at or better than LOS D through all segments, with only minor adjustments to signal cycle timing.

G. EMERGENCY ACCESS

The AOC's development of the project site will conform to recommendations of the Superior Court of California (Kings County), the Kings County Sheriff's Department, and the City of Hanford Fire Department to ensure adequate emergency access. The proposed project would provide a new roadway connection, and would not include closure of any existing public through street that is currently used for emergency services. It would not be expected to interfere with the adopted emergency response plan. Therefore, no significant impacts are anticipated.

H. PUBLIC TRANSIT, BICYCLE AND PEDESTRIAN ACCESS

The proposed project would not be expected to conflict with adopted policies, plans, or programs supporting alternative transportation. Bus transportation is available along Lacey Boulevard at Kings County Drive today. Bicycle parking would be provided on the site in compliance with city and state standards. Pedestrian access to and from the site would be an issue of focus in site planning, with pedestrian signal and crosswalks provided at the12th Avenue Street/ Kings County Drive/ Liberty Street intersection. No significant impacts are anticipated in relation to provision of facilities for transit, bicycle and pedestrian access.

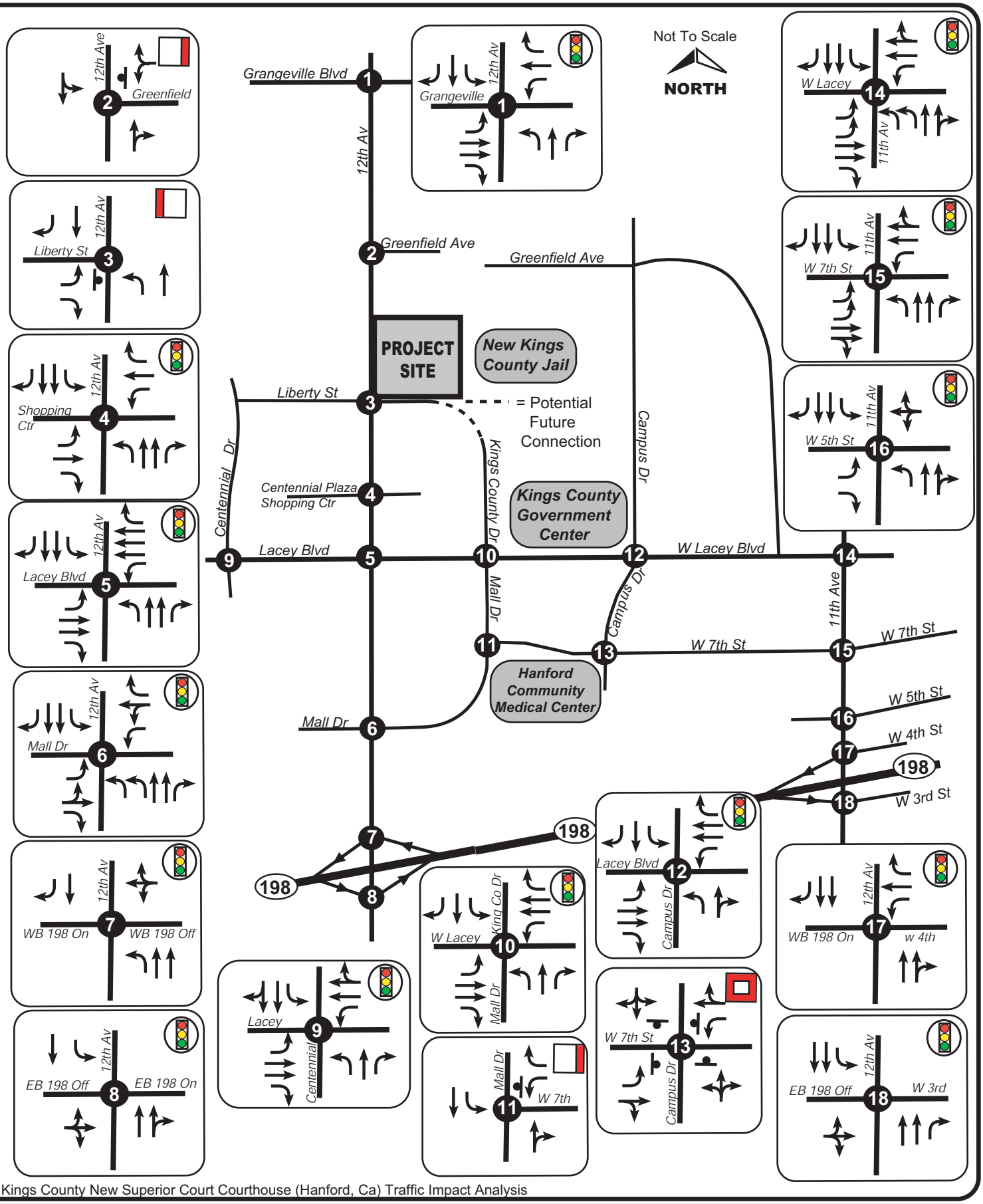


Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

CRANE TRANSPORTATION GROUP

Figure 1

Area Map

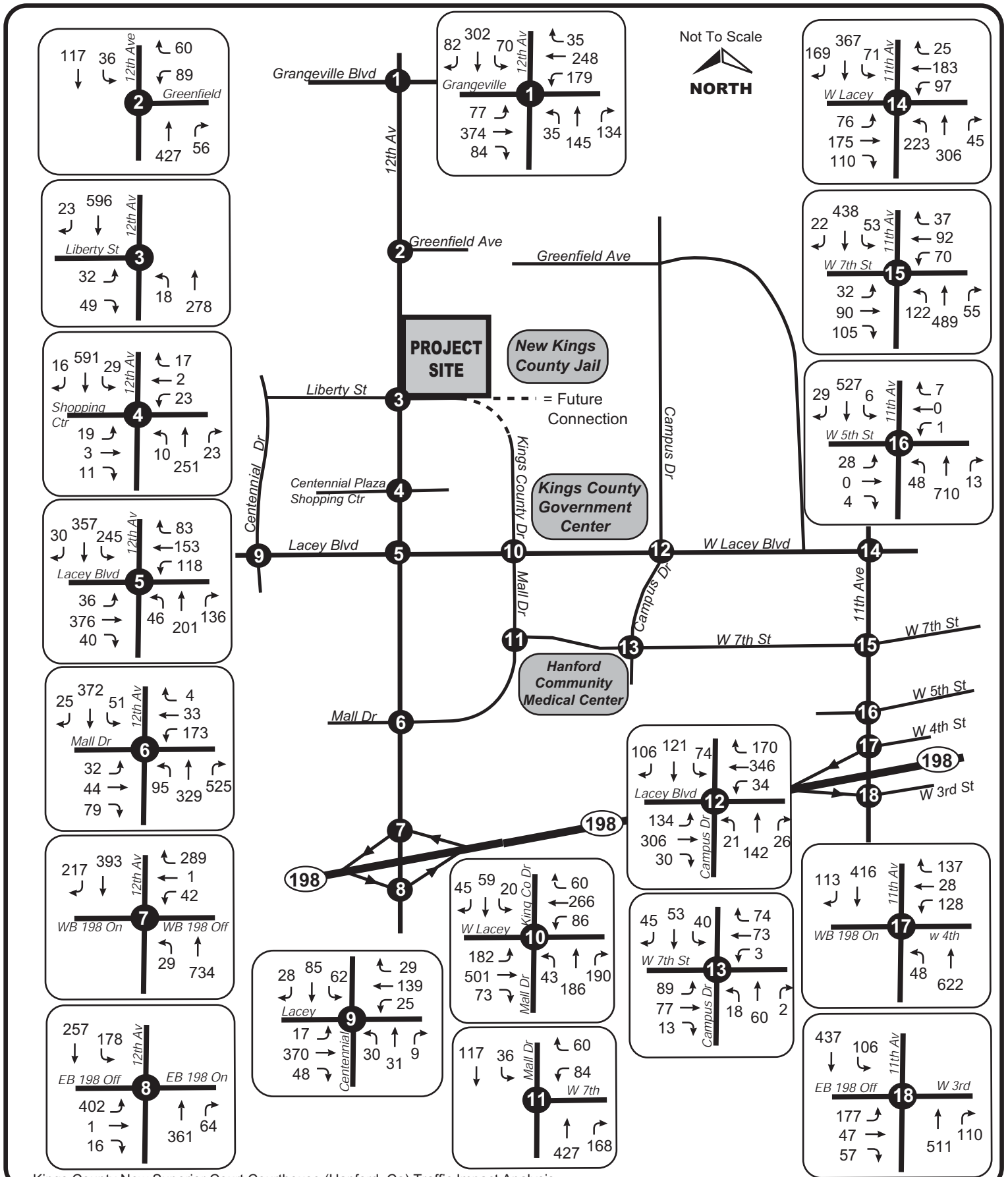


Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

CRANE TRANSPORTATION GROUP

Figure 2

Existing Lane Geometrics and Intersection Control



Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

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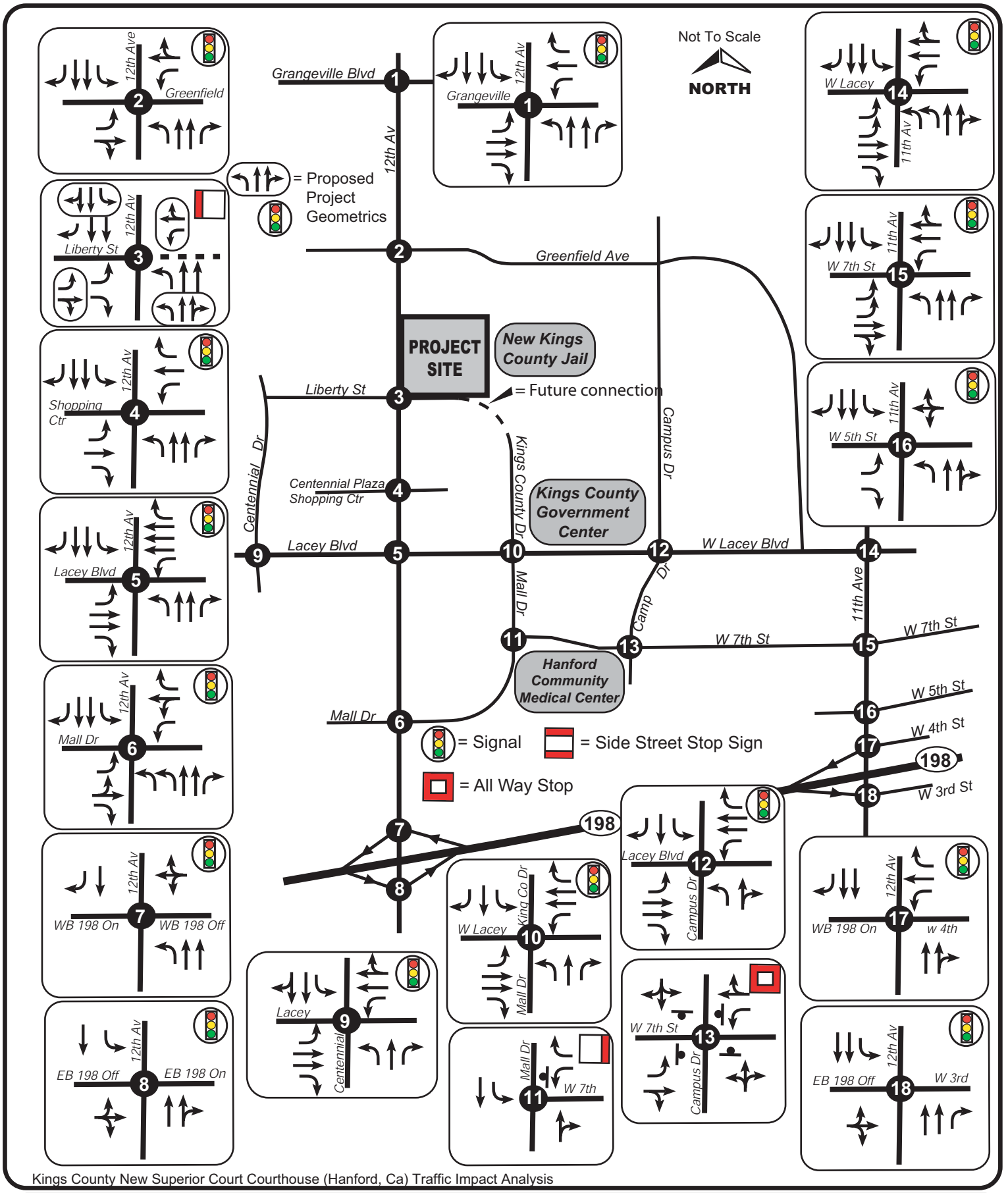
Figure 3
Existing
AM Peak Hour Volumes

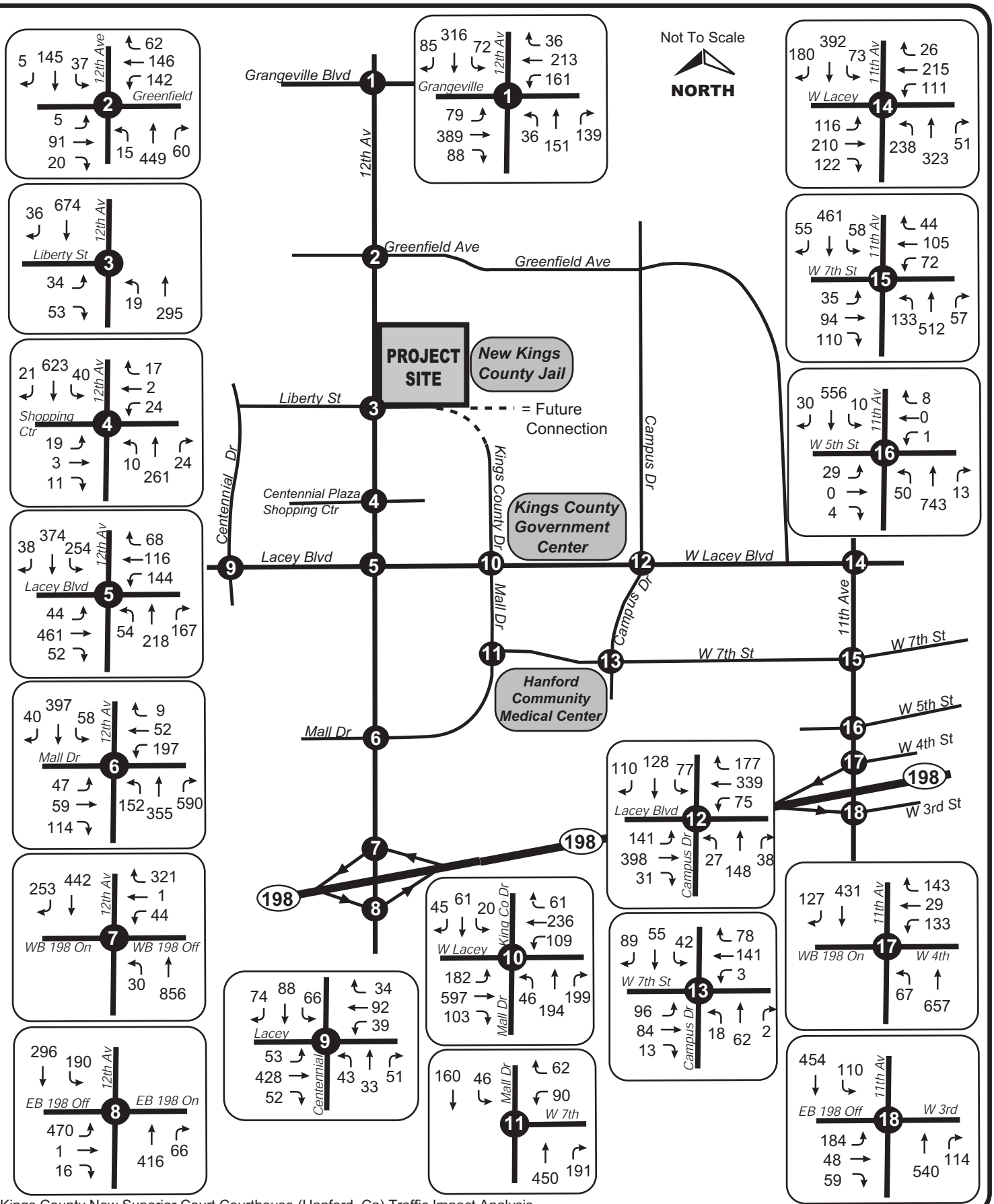


Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

CRANE TRANSPORTATION GROUP

Figure 4

Year 2015 Lane Geometrics and Intersection Control



Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

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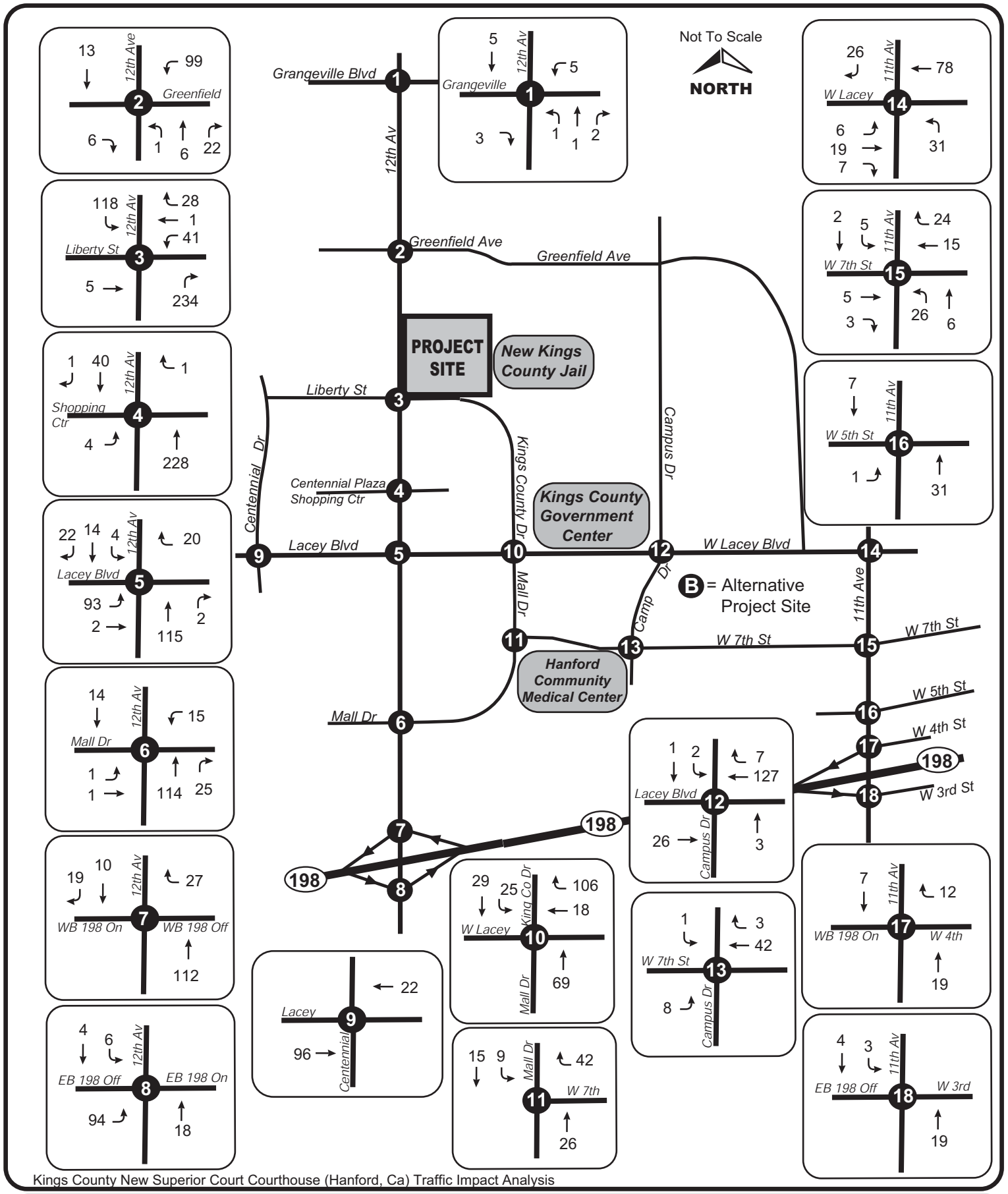
Figure 5

2015 Base Case (Without Project)
AM Peak Hour Volumes



Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

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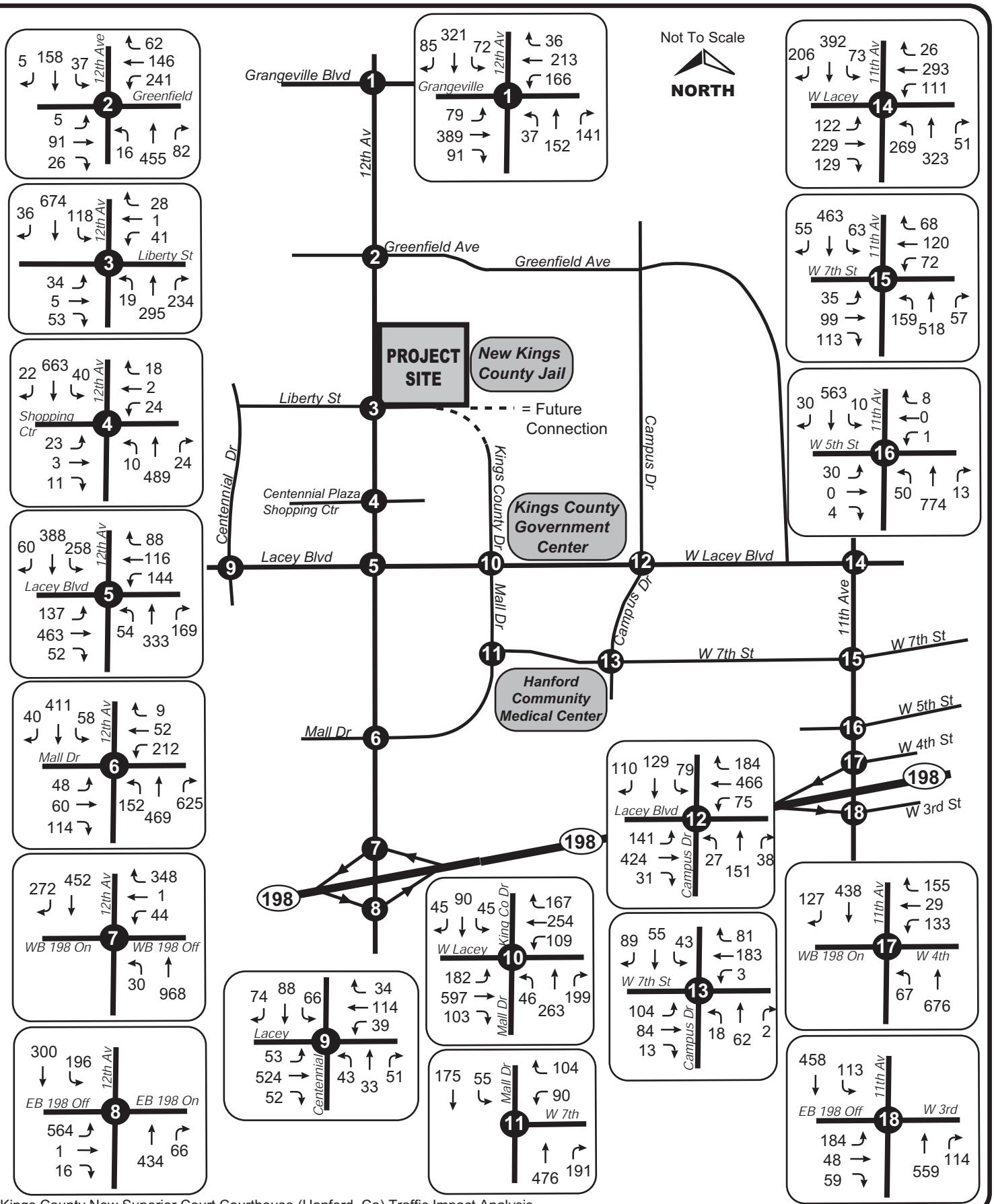
Figure 6
Project Increment + Increment from Re-Use of Vacated Court Buildings
AM Peak Hour Volumes



Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

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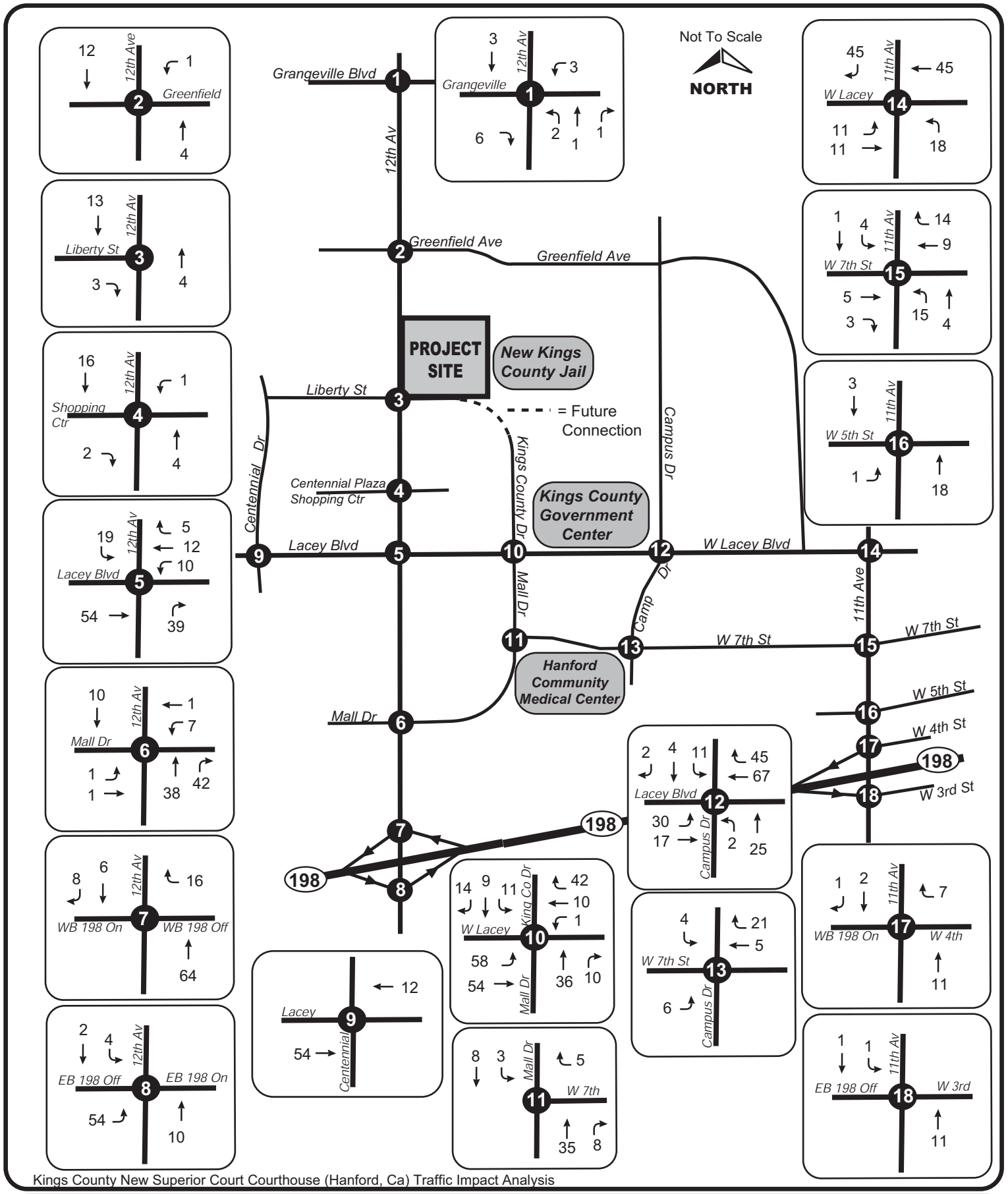
Figure 7

2015 Base Case + Project
AM Peak Hour Volumes



Kings County New Superior Court Courthouse (Hanford, Ca) Traffic Impact Analysis

Figure A-1

Existing Courthouse Traffic Removed from System
AM Peak Hour Volumes

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